Railroad Receiverships and Modern Bankruptcy Theory

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Some of the most important—and most interesting—recent work in the area of corporate and sovereign bankruptcy is rooted in the late 1800s and early 1900s, the golden age of the railroad receivership. Yet we know very little about railroad or equity receiverships beyond how they worked in theory.

This Article remedies the existing gap in the literature by analyzing a sample comprised of the largest railroads in the United States at the turn of the twentieth century, approximately half of which went through a receivership between 1890 and this country's entry into World War I. Comparing the fate of these two groups of railroads—those that went through a receivership and those that did not—after the First World War sheds considerable light on the long-term effectiveness of receiverships.

The results are striking. Railroads that underwent a receivership before World War I were more than two-and-a-half times more likely to undergo another receivership or file for bankruptcy after the War. Moreover, the average railroad that reorganized under a receivership subsequently failed at a rate more than twice as high as railroads that had never gone through a receivership and almost three times as high as modern chapter 11 debtors. Finally, the data show that J.P. Morgan & Co.'s involvement with a railroad had little effect on the railroad's ability to avoid financial distress.

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INTRODUCTION

Some of the most important—and most interesting—recent work in the area of corporate and sovereign bankruptcy is rooted in the late 1800s and early 1900s, the golden age of the railroad receivership.¹

This was an era when multi-million dollar corporations, most with hopelessly tangled financial structures, dealt with financial distress with a minimum of government involvement. The era’s appeal to modern bankruptcy scholars—many of whom have a lukewarm relationship with the current chapter 11—is obvious.3

Thus, railroad receiverships have recently been used as the basis of a new model for reorganization of firms with strong manager-owners,4 as a model for sovereign debt restructuring,5 and as an integral part of an account of American corporate law and its development.6 Receiverships have also been deployed in support of recent arguments about the interpretation of the Bankruptcy Code7 and the overall need for chapter 11 reorganization.8 In short, the modern uses of railroad receiverships abound.

But these discussions of railroad receivership—with their implicit or explicit suggestions that history offers lessons for reorganization of today’s troubled borrowers—have not been tested against available empirical evidence. As one scholar recently noted, “we really don’t know all that much about what went on [in] equity receiverships.”9

In particular, how do we know these receiverships were effective at addressing firms’ financial distress? Recent literature in this area assumes that the results achieved in railroad receiverships must have been beneficial, typically with little more than the faith that J.P. Mor-
gan & Co.'s participation must have ensured positive results, while dismissing earlier critiques by the Legal Realists as attacks upon that which they did not understand.

This Article remedies the existing gap in the literature by examining a sample comprised of the largest railroads in the United States at the turn of the twentieth century, approximately half of which went through a receivership between 1890 and this country's entry into World War I. Comparing the post-war fate of these two groups of railroads sheds some light on the long-term effectiveness of receiverships.

The results are striking. The data show that having undergone a receivership before World War I made a railroad more than two-and-a-half times (or 150%) more likely to undergo another receivership or bankruptcy after the War. The average railroad that reorganized under a receivership subsequently failed at a rate more than twice as high as railroads that had never gone through a receivership and almost three times as high as modern chapter 11 debtors. Additionally, Morgan's involvement with a railroad had little effect on the railroad's ability to avoid financial distress. Moreover, the railroads that underwent receiverships in the "golden age" shrank their average operating income between the Wars (even after accounting for inflation and deflation) while those that never went through a receivership saw their operating income grow by an average of more than $3 million.

In sum, railroad receivership offers a poor example of effective corporate reorganization. Contemporary commentators who belittle the Legal Realist critiques of railroad receiverships are being unfair to

10 Baird & Rasmussen, Control Rights, supra note 1, at 933 ("The key to the success of the equity receivership lay in the control rights given to the investment bankers and their need to return to the market in the future. Their reputations turned on maximizing the value of the firm as a whole, not on their treatment of any particular bondholder."); see also Skeel, Debt's Dominion, supra note 1, at 66, 112 (discussing the importance of a "reputational stake" in a market where similar transactions would likely be repeated); Baird & Rasmussen, Boyd's Legacy, supra note 1, at 402 (same). Recent events show that reputational concerns are, at best, semi-strong constraints on misbehavior. See John C. Coffee, Jr., Understanding Enron: "It's About the Gatekeepers, Stupid," 57 Bus. LAW. 1403, 1406-05 (2002) ("Behind [the Enron] disruption lies the market's discovery that it cannot rely upon the professional gatekeepers—auditors, analysts, and others—who the market has long trusted to filter, verify and assess complicated financial information.").

11 Baird & Rasmussen, Control Rights, supra note 1, at 925 n.10 ("[A]cademics of this period did not acquit themselves especially well. They misunderstood the practice of corporate reorganizations and butchered the finance theory."); see also Marcus Cole, Limiting Liability Through Bankruptcy, 70 U. Cin. L. Rev. 1245, 1268-69 (2002) (discussing New Deal era reforms of equity receivership).

12 See Table 6, infra at p. 1461.

13 Dollar figures in this Article have been standardized to 1900 dollars. See infra notes 188-89 and accompanying text.
the critics and overly romantic about the success and utility of those receiverships.14

At heart, even though it is very tempting to see receiverships in terms of modern practice, they really were not some sort of steam-powered, proto-chapter 11. Unlike modern chapter 11—where a debtor can radically revamp its financial structure while in bankruptcy—railroad receiverships were limited to making modest adjustments to a firm’s financial structure. If a railroad had taken on excessive debt, receiverships could return its financial structure to the mainstream of industry practice, but they were not capable of facilitating substantial improvements that would allow a railroad to weather the next economic downturn. And, to make matters worse, receiverships appear to have taken as long—and sometimes much longer—than today’s much-maligned chapter 11 cases,15 while costing much more.16

Limited by their very nature as a largely consensual form of reorganization—debtors could not “cram down” a dissenting class as they can now17—receiverships could do little more than fine-tune the railroads’ financial structures even though all indications pointed to the need for major overhauls.18 After all, by 1890 the railroads had precipitated several major economic panics, as well as sundry minor pan-

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14 As David Skeel noted while reading an earlier draft of this Article, the Realist-New Deal critique of receiverships consisted of two parts, both serving a single argument that small investors were swindled in the process. First, the New Dealers believed that receiverships were ineffective at addressing a railroad’s financial problems. Second, they argued that receiverships were tainted by professionals’ self interest. See, e.g., Baird & Rasmussen, Control Rights, supra note 1, at 934–35 & nn.55–60 (discussing the New Deal critique). The contemporary literature tended to focus on the second argument, while this Article focuses on the first. Yet the second point also supports the first, as the conflicts of interests explain why an ineffective procedure was perpetuated long after its faults should have been apparent. See infra Part IV.

15 See Tables 3 and 4, infra at p. 1451. To be sure, criticism of the length of chapter 11 cases seems to have tempered with the realization that extended bankruptcies, such as that of Eastern Airlines, see Stephen J. Lubben, The Direct Costs of Corporate Reorganization: An Empirical Examination of Professional Fees in Large Chapter 11 Cases, 74 Am. Bankr. L.J. 509, 543 (2000) [hereinafter Lubben, Direct Costs], are not typical of chapter 11 at large. See, e.g., Baird & Rasmussen, End of Bankruptcy, supra note 1, at 789 (“Bankruptcy judges are asked to identify quickly who can make it and who cannot. There is evidence that bankruptcy judges [in Modern Chapter 11 cases] do this job well.”).

16 See infra notes 158–67 and accompanying text.


18 See Philip M. Payne, Plans of Corporate Reorganization 2 (1934) (“A court of equity has neither authority nor power to carry out and enforce any plan of readjustment without the cooperation of the owners of the property, the holders of the stocks and bonds.”).
ics, and they would play instrumental roles in two more significant downturns before the First World War.19

Equity receiverships were more like workouts, with all their acknowledged limitations,20 than chapter 11 or other forms of bankruptcy reorganization.21 But the railroads and their bondholders already knew how to negotiate a workout, and they did so frequently.22

Receiverships, like chapter 11 today, were expected to offer something more—a stronger tool for resolving a railroad’s financial problems. The data presented herein suggest that receiverships failed in this mission. That the railroads’ many sophisticated professionals failed to address this situation and continued to steer their clients through receivership after receivership lends credence to the Legal Realist claim that the many roles these professionals filled clouded their judgment.23

The remainder of this Article is divided into four parts. Part I begins the examination of receiverships by placing railroads in the context of the country’s financial development in the late 1800s and early 1900s, with a special concentration on the years between 1900 and 1937, which will be the focus of the empirical analysis. Part II outlines railroad finance and the use of equity receiverships to address a railroad’s financial distress. This Part of the Article contains a de-

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19 See I Grant Gilmore, Security Interests in Personal Property 430 (1965) (“Historically the railroads have made insolvency a way of life, with brief periods of prosperity punctuating the successive reorganizations.”); see also infra text accompanying note 37.

20 For example, one study has found that present-day out-of-court restructurings generally result in less debt load reduction than chapter 11 bankruptcy reorganization. See Stuart C. Gilson, Transactions Costs and Capital Structure Choice: Evidence for Financially Distressed Firms, 52 J. Fin. 161, 162 (1997). Moreover, it is generally believed that many workouts often fail, in part due to holdout problems, and ultimately result in formal bankruptcy proceedings. See Lubben, Direct Costs, supra note 15, at 519–20 (arguing that workouts must be seen as part of a larger process leading to the resolution of financial distress).

21 Alternatively, receiverships might be seen as comparable to the informal negotiation procedures used when financial distress compels large English firms to reorganize. See John Armour et al., Corporate Ownership Structure and the Evolution of Bankruptcy Law: Lessons From the United Kingdom, 55 Vand. L. Rev. 1699, 1757–58 (2002).

22 See, e.g., Stuart Daggett, Railroad Reorganization 320–33 (1908) [hereinafter Daggett (1908)] (discussing the 1902 out-of-court restructuring of the Rock Island Railroad).

23 See David A. Skeel, Jr., The Rise and Fall of the SEC in Bankruptcy 8 n.18 (Univ. of Penn. Law Sch., Inst. for Law and Econ., Working Paper No. 267, 1999), available at http://ssrn.com/abstract=172030 (“The dominant theme of [William O. Douglas's SEC report on receiverships] is that the Wall Street investment bankers and lawyers who managed the reorganization process focused more on their own fees than on the interests of investors.”); see also David A. Skeel, Jr., Vern Countryman and the Path of Progressive (And Populist) Bankruptcy Scholarship, 115 Harv. L. Rev. 1075, 1089 (2000) (“[T]he Wall Street professionals who organized protective committees in order to negotiate the reorganization seemed to focus more on obtaining generous fees for themselves than on striking a good bargain on behalf of the scattered investors whom they purported to represent.”).
tailed description of what a receivership was and how it was used to address a railroad's financial collapse. Part III presents the empirical part of the Article summarized above. Part IV considers the implications of these empirical results for present-day scholarship and concludes with the observation that the actors in railroad receiverships were complex characters, unsuited to broad generalizations.

It is not my goal in this Article to critique any particular use of receiverships in modern scholarship. Nonetheless, as I discuss more fully in Part IV, the data presented herein plainly places a new burden on those who would use receiverships to advance present-day goals. In particular, these authors face the task of explaining why the defects this Article identifies would not also undermine any new model that draws insights from railroad receiverships and the early days of corporate reorganization.

I
THE RAILROAD INDUSTRY BETWEEN 1900 AND 1937

In his report on the young country, Tocqueville noted that "[t]he longest railways yet constructed are in the United States." He no doubt could not have anticipated the future.

Railroads burst forth from just over 35,000 miles of track at the end of the Civil War to almost 195,000 miles of track in 1900. Along the way the railroads had precipitated several major financial collapses, but by the turn of the twentieth century railroad management and investors probably looked to the future with a good deal of optimism.

Railroads had emerged from the receiverships of the 1890s with greatly rationalized capital structures and, by all accounts, a substantial reduction in their fixed charges. By 1900, railroads had become the dominant mode of transportation and had yet to face significant competition from either the trucking or airline industries, or the growth of individual automobile ownership.

But the railroads' bumpy past would color their future, leading to well-intentioned but poorly implemented regulation at the very time

26 See Baird & Rasmussen, Control Rights, supra note 1, at 932; see also 2 Arthur S. Dewing, The Financial Policy of Corporations 1247-51 (5th ed. 1953) (discussing the reorganizations that followed the panic of 1893).
RAILROAD RECEIVERSHIPS

that the railroads needed to adapt to the rapidly changing twentieth-century economy. Most of the great [railroads] had been built by fraudulent construction companies, and if perchance a [railroad] had been honestly built, there was always an opportunity to correct this oversight by disreputable, but highly profitable, manipulation of its securities. Thus, for example, the Union Pacific’s management bound the railroad to contracts with management-owned corporations. The management of both the Baltimore & Ohio and the Santa Fe hid financial rot for years through base accounting fraud. Jay Gould’s outrageous machinations as minority shareowner and controlling figure of the Erie led to the branding of that railroad as the “Scarlet Woman of Wall Street.”

At the same time, the railroads offered generous rates to powerful shippers like Standard Oil, while charging local farmers higher rates to subsidize the practice—a tactic that both reduced railroad revenues and engendered popular hostility. As Herbert Hovenkamp has noted, the reasons for rate discrimination were many, and not all were nefarious. But rate discrimination was very often only a small piece of the more general growth of cartels in the late 1800s and early 1900s, which made the legitimate grounds for such differential pricing pale in comparison to political fervor about the seemingly unstoppable growth of big business. In the end, the insiders’ continued

31 See DAGGETT (1908), supra note 22, at 22–23 (“Earnings had been increased by the most arbitrary of book-keeping devices . . . . [A]nd the Baltimore & Ohio took its place with other American corporations, the managements of which have indulged in secret juggling with the books.”); id. at 208 (commenting on the failure of the Santa Fe and remarking that “[f]ew more disgraceful instances of the juggling of figures have been brought to light in the history of American railroad finance”).
32 The most recent telling of this story can be found in Edward B. Rock, Encountering the Scarlet Woman of Wall Street: Speculative Comments at the End of the Century, 2 THEORETICAL INQUIRIES IN LAW 237, 238–48 (2001).
34 See Herbert Hovenkamp, Regulatory Conflict in the Gilded Age: Federalism and the Railroad Problem, 97 YALE L.J. 1017, 1049–50 (1988) (explaining the controversy existing over varying short-hand and long-hand rates); see also Henry H. Swain, Comparative Statistics of Railroad Rates, 6 AMER. STAT. ASSOC. 115, 115–22 (1898) (noting the flaws in efforts to examine the validity of rates solely by revenues per mile).
35 See, e.g., Handy v. Cleveland & Marietta R.R. Co., 31 F. 689, 689–93 (C.C.S.D. Ohio 1887) (describing scheme by which railroad would carry Standard Oil’s products at ten cents a barrel, while charging Standard Oil’s competitors 35 cents and remitting the spread to Standard Oil).
36 For a sense of the disdain many farmers felt for the railroads, see FRANK NORRIS, THE OCTOPUS (Thomas Nelson & Sons 1920) (1901) (portraying a fictionalized account of
extraction of private benefits from railroads left the railroads unable to face economic downturns, and their continued arrogance in the face of growing public resentment left them unable to forestall federal regulation.

In 1873, the investment bank heading up the financing of the Northern Pacific Railroad failed, leading to a general stock market panic and the closure of the New York Stock Exchange for ten days in September of that year. Ultimately, 89 railroads defaulted on their bonds, which led to a general economic collapse lasting until the end of the decade.

The railroads recovered in the 1880s, but soon began to reach the limits of their geographic expansion, as future building would mostly add redundant capacity to the national rail system rather than expand its reach to new locales. Cutthroat competition naturally followed. J.P. Morgan and others attempted to negotiate price-fixing and market allocation agreements among the railroads, but, like most cartels, these agreements were only effective in the short term.

Throughout the decade, controlling shareholders—including leading investment banks that were often the silent partners of the more notorious speculators—continued to extract private benefits from the railroads. And the railroads continued to produce periodic turbulence in the country’s economy even in a time of putative prosperity.

See, e.g., Jean Edward Smith, Grant 619–21 (2001) (discussing the 1884 failure of Grant & Ward, the resulting stock market panic, and the Wabash Railroad’s subsequent...
By 1893, the railroads were wracked by the twin forces of low net revenues—a result of unbridled rate cuts—and continued financial rot. By 1893, the railroads were wracked by the twin forces of low net revenues—a result of unbridled rate cuts—and continued financial rot.44 Ten days before Grover Cleveland began his second stint as President, the Philadelphia & Reading Railroad was placed in the hands of a receiver.45 The other major railroads soon followed; by the end of the year the Erie, Northern Pacific, Union Pacific, and the Sante Fe had all been taken over by receivers.46 The depression of 1893 would eventually lead to the collapse of 126 railroads by June of 1894,47 representing $2.5 billion (25%) of the total railroad capital at the time.48

Nearly simultaneously, Congress responded to continued pressure to curb railroad abuses. The Interstate Commerce Act,49 passed in 1887, established the first federal administrative agency specifically designed to regulate the railroad industry.50 The Sherman Antitrust Act followed in 189051 and was eventually interpreted to apply to the railroads.52 The advent of federal regulation threatened railroad profits and caused considerable alarm among investors,53 but in the short term—largely as the result of several Supreme Court deci-

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44 See Gras & Larson, supra note 42, at 92 ("Morgan's opportunity came with the panic of 1893, which precipitated the failure of many railroads inherently weak from the results of bad management and destructive competition.").
45 See CASHMAN, supra note 37, at 270.
46 See id. at 270–71.
48 See CASHMAN, supra note 37, at 271; Ripley, supra note 47, at 376; Charles Hoffmann, The Depression of the Nineties, 16 J. Econ. Hist. 137, 138 (1956).
52 N. Sec. Co. v. United States, 193 U.S. 197, 331 (1904); United States v. Trans-Mo. Freight Ass'n, 166 U.S. 290, 341 (1897) ("The conclusion which we have drawn . . . is that the Anti-Trust Act applies to railroads . . . ").
53 Thus, as one prominent economist would remark:

The practical difficulty is that the law, by the clause prohibiting pools, has rendered it nearly impossible for the railroads to cultivate such reasonable relations with one another; or, rather, it has made it possible for the most reckless manager among several rival companies to dictate the policy of them all.

sions—both the Interstate Commerce Act and the Sherman Act were rendered impotent. Indeed, until the Progressive Era was in full swing, the Sherman Act was only used to harass railway unions—most notably in the case of union leader and future presidential candidate Eugene Debs.

![Figure 1](source: www.globalfindata.com)

In short, railroads were in an enviable position in 1900. The problems of the 1800s seemed to have been solved, in part through the reorganization (and sometimes “Morganization”) of key rail-

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54 See, e.g., United States v. E.C. Knight Co., 156 U.S. 1, 16 (1895).
55 See Josephson, supra note 40, at 306–07; see also Lewis L. Gould, The Presidency of William McKinley 160–61 (1980) (discussing the Justice Department’s narrow view of the antitrust laws during this period). As Morton Horowitz has noted, this was an age when “American courts came as close as they had ever had to saying that one had a property right to an unchanging world.” Morton J. Horowitz, The Transformation of American Law, 1870–1960: The Crisis of Legal Orthodoxy 151 (1992).
57 This was the term used to describe J.P. Morgan’s paradigmatic reorganization scheme, used repeatedly in the 1890s. As E.G. Campbell explains: The Morgan reorganizations during the nineties all followed the same general pattern, manifesting three especially important characteristics. The immediate problems which had precipitated trouble—the finances of the road—were put on a sound basis. Secondly, Morgan was reluctant to surrender control of the roads after the reorganizations had been completed; by means of voting trusts his control was perpetuated and even after the trusts had been terminated, his representatives were usually to be found among the directors of the companies. The third feature of Morgan’s railroad activities during the late nineties was the establishment of the Commu-
roads following the depression in 1893. Furthermore, the twin specters of the automobile and government regulation seemed, for now, to be easily managed.\(^5\)

Despite the promise that railroads showed in 1900, the industry would see two more large waves of financial distress and receivership before the start of World War II. Between 1908 and 1916, ten significant railroads—each with over 1,000 miles of track—and myriad smaller railroads would begin receivership proceedings.\(^5\)

And after the stock market crash in 1929, railroad revenues dropped from $6 billion in 1928–29 to $3 billion in 1933.\(^6\)

By 1932, over 20,000 miles of railroad, owned by more than 50 railroad companies, were in receiverships.\(^6\)

By 1940, more than 60,000 miles of rail were operated by trustees under Section 77 of the Bankruptcy Act enacted in 1933.\(^6\)

Many more railroads avoided bankruptcy or receivership solely by the grace of large government loans\(^6\) or by resort to the emergency debt-postponement measures added to the Bankruptcy Act\(^6\) during the New Deal. Moreover, as shown in Figures 1 and 2, after World War I railroads significantly underperformed when compared to the broader market.\(^6\)

\(^{58}\) See Harold U. Faulkner, The Decline of Laissez Faire, 1897–1917, at 228 (1962) ("To the railroads, approaching in 1900 the height of their power, any idea that the few self-propelled contraptions puttering through the streets would ever constitute a rival worth considering was too fantastic for serious consideration.").

\(^{59}\) See Robert T. Swaine, Reorganization of Corporations: Certain Developments of the Last Decade, 27 Colum. L. Rev. 901, 901 (1927) (reporting that in 1916 more than 80 railroads, together owning approximately 42,000 miles of track—about 16% of the total track mileage—were in receivership).


\(^{62}\) Florence de Haas Dembitz, Progress and Delay in Railroad Reorganizations Since 1933, 7 Law & Contemp. Probs. 393, 393–94 (1940).


\(^{64}\) Pub. L. No. 76-242, 53 Stat. 1134 (1939). These provisions were enacted in July 1939 and, by their terms, expired one year later. Similar legislation was in force from 1942 until November 1945. Pub. L. No. 77-747, 56 Stat. 787 (1942). The provisions of both enactments were applicable only to common carriers (as defined in section 20a of the Interstate Commerce Act) that were not the subject of a receivership or bankruptcy. See generally Arthur W. Silverstone, Bankruptcy and Reorganization 287–295 (1940) (discussing the 1939 legislation).

\(^{65}\) These graphs use the Dow Jones Transport index as a proxy for railroads. Before January 1970, this index was comprised solely of railroads and was at times known as the Dow Jones Rail index. Dow Jones calculated its first all-rail index on October 26, 1896. Its components included Atchison, Burlington, CCC & St. Louis, Chesapeake & Ohio, Chicago & North Western, Erie, Jersey Central, Lake Shore, Louisville & Nashville, Manhattan...
II

RAILROAD FINANCIAL STRUCTURES AND THE RESOLUTION OF FINANCIAL DISTRESS

A. Railroad Finance

In the early years of the twentieth century, railroad finance was dominated by three themes often neglected in recent (legal) accounts of the era: a decline in foreign investment, an increased reliance on debt financing, and an increased use of internal sources of funding.

First, the degree of foreign investment in American railroads, as a portion of the railroad's overall capital, declined as the century progressed and all but disappeared by 1915. The initial decline in foreign investment as a percentage of the whole undoubtedly reflects the growth of domestic investment capital and the consolidation of


66 See, e.g., Leland H. Jenks, Capital Movement and Transportation: Britain and American Railway Development, 11 J. ECON. HIST. 375, 375 (1951) (stating that on the eve of the First World War, British "railroad holdings in the United States amounted to around 15 per cent of the railroad capitalization; at earlier periods, though the amount was less, the proportion may have been as high as one fourth").

67 See DOROTHY R. ADLER, BRITISH INVESTMENT IN AMERICAN RAILWAYS 1834–1898, at 200 (1970) (describing the 1890s as "the end of an era" in foreign investment in the United States as the economy grew to provide domestic sources of capital).
the railroad industry into control groups dominated by domestic investors.\textsuperscript{68} It also reflects the simple fact that some foreign investors, having made significant profits from their initial investments in North America, had moved on to other developing markets like Latin America and Australia.\textsuperscript{69} The complete withdrawal of foreign investment by 1915 is attributable to the already stagnating conflict in Western Europe.\textsuperscript{70} Taken together, however, these trends remind us that the image of J.P. Morgan and other investment bankers as mediators between domestic railroads and foreign investors was increasingly becoming a relic of the nineteenth century.\textsuperscript{71}

Second, railroads increased their reliance on debt financing throughout the period, despite the extensive experience with repeated bouts of financial distress that would seem to counsel for a greater use of equity.\textsuperscript{72} According to William Z. Ripley, in the early part of the nineteenth century railroads were often financed entirely, or at least predominately, by equity.\textsuperscript{73} By the end of the Civil War, however, railroads had turned to bonds—typically secured bonds—for the bulk of their capital.\textsuperscript{74}

The reasons for this change are unclear. Ripley asserts that the increasing size of railroad projects and state laws against issuing shares for less than par were among the factors that thwarted the continued

\textsuperscript{68} Mira Wilkins, The History of Foreign Investment in the United States to 1914, at 195 (1989).

\textsuperscript{69} Albert Fishlow, Lessons from the Past: Capital Markets During the 19th Century and the Interwar Period, 39 Int'l Org. 383, 395-96 (1985). One must be careful not to push this point too far; foreign investment (particularly British investment) in the United States and its railroads remained substantial until the outbreak of hostilities in Europe. \textit{Id.} at 394 tbl.2 (showing that over $4 billion of the $20 billion in overseas British investment in 1914 was placed in the United States); \textit{see also} Jenks, supra note 66, at 375 (stating that about $3 billion of the total $4 billion of British investment in the United States on the eve of the War was connected with American railroads). Further, as Professor Wilkins notes, a decline in the degree of European control of American railroads does not mean a diminution of total investment in the railroads. \textit{See Wilkins, supra} note 68, at 197 (observing that large European purchases of railroad bonds occurred in the years 1907-13).

\textsuperscript{70} \textit{Compare} John Keegan, The First World War 10-12 (1999) (discussing the global economy on the eve of the war), with Fishlow, \textit{supra} note 69, at 390 ("Shortly after the war began, European holdings of American securities were liquidated to meet the new expenses and the United States, a prominent investor in Latin America since the 1890s, became a net creditor for the first time.").

\textsuperscript{71} Baird & Rasmussen, Control Rights, \textit{supra} note 1, at 928.


\textsuperscript{73} \textit{Ripley, supra} note 47, at 10-11; \textit{see also} Alfred D. Chandler, Jr., Patterns of American Railroad Finance, 1830-50, 28 Bus. Hist. Rev. 248, 248-63 (1954) (discussing the importance and mechanisms of debt financing).

use of equity financing. But project size alone is no reason to choose debt financing over equity.

The rules with respect to par value (and stock issuance in general) were undoubtedly burdensome and further complicated by the fact that many early railroads were chartered by the acts of the legislature. If par value were a serious problem, however, we would expect to see some evidence of railroads lobbying state legislatures during the nineteenth century to permit the issuance of no par or low par stock. Instead, the move to allow no par stock did not come until the Progressive Era.

More pragmatically, the need to raise additional capital through debt—particularly, secured debt—was probably the natural result of rampant self-dealing in the 1800s. Secured debt provided non-insider investors with the highest degree of protection against claim dilution and asset substitution in an age when stock watering and other forms of looting were common. Even well-managed railroads would have had difficulty convincing the markets that their equity was immune from this sort of self-dealing, since the true ownership of a railroad was often concealed.

Furthermore, from the supply side, management had a strong incentive to rely on debt over equity given the belief (endemic among

75 See Ripley, supra note 47, at 11-14; accord Baird & Rasmussen, Control Rights, supra note 1, at 926 n.19 ("The need for debt financing arose with the tremendous expansion of railroads after [the 1850s].").
76 See, e.g., 1871 Mass. Acts 389 (current version at Mass. Gen. Laws ch. 160, § 42 (2003)) (providing that, "[i]f any railroad corporation, owning a railroad in this Commonwealth and consolidated with a corporation in another state owning a railroad therein, increases its capital stock or the capital stock of such consolidated corporation without authority of the legislature of this Commonwealth, or without such authority extends its line of road, . . . the charter and franchise of such corporation shall be subject to be forfeited and become null and void"). Like the doctrine invalidating ultra vires acts, the par value rules were often the source of creative attempts to avoid otherwise binding obligations. E.g., Peterborough R.R. Co. v. Nashua & L. R.R. Co., 59 N.H. 385 (1879) (rejecting claim that railroad's pledge of stock as collateral was prohibited as a sale for less than par).
77 See, e.g., Commonwealth v. Lehigh Ave. R. Co., 18 A. 414, 414 (Pa. 1889); State ex rel. Attorney Gen. v. N. Pac. Ry. Co., 147 N.W. 219, 221-23 (Wis. 1914) (discussing the nature of railroad charters which were organized under special legislative provisions).
79 See, e.g., Greenberg, supra note 41, at 180 (illustrating the way in which three controlling stockholders dominated a railroad's policy through their access to confidential information and insistence on secrecy).
80 See id. at 23-24 (observing that "stock frauds in the early 1850s, frequent delays in stock dividends, and continued calls for assessments convinced capitalists that long-term obligations (with a prior claim on interest and a claim against property to secure debts) offered a safer place for savings").
81 See id. at 179-80.
management throughout history) that dividends could only be reduced in extreme circumstances.\textsuperscript{82} Common stock of the era typically paid upwards of five or six percent of par (typically $100) in annual dividends at a time when risk-free interest rates were less than four percent.\textsuperscript{83}

The reliance on secured debt did not diminish in the twentieth century, despite an ostensible reduction in the degree of insider self-dealing.\textsuperscript{84} As shown in Table 1, between 1900 and 1937 new railroad bond issues were overwhelming secured issues. The presence of hundreds of millions of dollars in unsecured bonds, however, reminds us that not all of a railroad’s unsecured creditors were trade creditors.\textsuperscript{85}

The continued overuse of debt well into the twentieth century may also be traced to the fact that individual share ownership was still relatively rare until the 1920s. Before then, common stock was primarily held by investment banking firms and a handful of very wealthy individuals (some of them investment bankers).\textsuperscript{86} These parties had every incentive to leverage their returns as shareholders. At the same time, they could tolerate the risks associated with this leverage because they knew that failure would not necessarily mean a loss of control; railroad receiverships of the age frequently allowed existing equity to remain in place in the reorganized firm.\textsuperscript{87} Accordingly, a railroad’s owners, who might otherwise complain about the overuse of bond debt, were likely to stay mum.

In short, despite past experience, management and their financial advisers continued to utilize financial structures that increased the chances of default in times of economic disturbance. This aspect of railroad finance is especially important because railroads that had gone through receiverships—those which had been given an opportu-

\textsuperscript{82} See generally John Lintner, Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes, 46 Am. Econ. Rev. 97 (1956) (discussing corporate behavior).

\textsuperscript{83} The yield on 10-year U.S. government bonds was less than 4% every year between 1890 and 1919, and was less than 3.5% for the first decade of the twentieth century.

\textsuperscript{84} Insider self-dealing simply became more sophisticated, often taking the form of overly generous spreads obtained by shareholder-bankers. See, e.g., Faulkner, supra note 58, at 200 (describing the Chicago and Alton Railroad’s sale of $40 million worth of 3% bonds to its banker-shareholders at $65, and the resale to the public at $90 resulting in a personal profit of $8 million).

\textsuperscript{85} See Baird & Rasmussen, Boyd’s Legacy, supra note 1, at 405 (“Most of the general [unsecured] creditors were suppliers with ongoing relationships with the railroad.”); Baird & Rasmussen, Control Rights, supra note 1, at 926 (“Railroads were initially built and financed in stages. Each stage was financed through mortgages whose form paralleled that of conventional real estate mortgages.”); id. at 927 n.21 (“Besides the bondholders, there were few other creditors. Suppliers of coal and the like were paid on an ongoing basis.”).

\textsuperscript{86} See Adolf A. Berle, Jr. & Gardiner C. Means, The Modern Corporation and Private Property 56–62 (1932).

TABLE 1: RAILROAD BOND OFFERINGS BY YEAR (IN MILLIONS)

Based on NBER's sample of all large (> $5 million) railroad issues and 10% of smaller railroad issues.

<table>
<thead>
<tr>
<th>Year of Offering</th>
<th>Total</th>
<th>Senior</th>
<th>Secured Issues</th>
<th>Unsecured Issues</th>
<th>Information Lacking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>$345.1</td>
<td>$135.0</td>
<td>$88.1</td>
<td>$111.5</td>
<td>$10.5</td>
</tr>
<tr>
<td>1901</td>
<td>735.6</td>
<td>260.9</td>
<td>79.7</td>
<td>375.0</td>
<td>20.0</td>
</tr>
<tr>
<td>1902</td>
<td>517.0</td>
<td>143.8</td>
<td>93.6</td>
<td>215.5</td>
<td>64.1</td>
</tr>
<tr>
<td>1903</td>
<td>398.7</td>
<td>79.1</td>
<td>60.8</td>
<td>218.8</td>
<td>40.0</td>
</tr>
<tr>
<td>1904</td>
<td>531.6</td>
<td>131.5</td>
<td>103.2</td>
<td>251.4</td>
<td>45.5</td>
</tr>
<tr>
<td>1905</td>
<td>738.0</td>
<td>224.9</td>
<td>49.1</td>
<td>306.6</td>
<td>157.4</td>
</tr>
<tr>
<td>1906</td>
<td>429.8</td>
<td>60.9</td>
<td>35.3</td>
<td>214.5</td>
<td>119.1</td>
</tr>
<tr>
<td>1907</td>
<td>556.4</td>
<td>61.5</td>
<td>56.4</td>
<td>221.4</td>
<td>209.2</td>
</tr>
<tr>
<td>1908</td>
<td>573.6</td>
<td>127.7</td>
<td>190.3</td>
<td>186.9</td>
<td>68.7</td>
</tr>
<tr>
<td>1909</td>
<td>668.8</td>
<td>128.0</td>
<td>218.7</td>
<td>135.9</td>
<td>186.1</td>
</tr>
<tr>
<td>1910</td>
<td>443.7</td>
<td>129.9</td>
<td>48.9</td>
<td>131.6</td>
<td>129.9</td>
</tr>
<tr>
<td>1911</td>
<td>524.4</td>
<td>149.3</td>
<td>121.1</td>
<td>186.0</td>
<td>68.0</td>
</tr>
<tr>
<td>1912</td>
<td>442.6</td>
<td>77.1</td>
<td>29.6</td>
<td>185.7</td>
<td>150.2</td>
</tr>
<tr>
<td>1913</td>
<td>519.6</td>
<td>110.1</td>
<td>185.6</td>
<td>130.8</td>
<td>95.1</td>
</tr>
<tr>
<td>1914</td>
<td>558.3</td>
<td>70.6</td>
<td>147.5</td>
<td>225.2</td>
<td>115.0</td>
</tr>
<tr>
<td>1915</td>
<td>668.5</td>
<td>59.0</td>
<td>240.8</td>
<td>252.1</td>
<td>116.6</td>
</tr>
<tr>
<td>1916</td>
<td>546.1</td>
<td>131.9</td>
<td>305.6</td>
<td>103.6</td>
<td>5.0</td>
</tr>
<tr>
<td>1917</td>
<td>491.4</td>
<td>65.3</td>
<td>168.1</td>
<td>237.8</td>
<td>20.2</td>
</tr>
<tr>
<td>1918</td>
<td>185.8</td>
<td>49.1</td>
<td>93.5</td>
<td>33.0</td>
<td>8.2</td>
</tr>
<tr>
<td>1919</td>
<td>250.4</td>
<td>48.5</td>
<td>102.5</td>
<td>80.8</td>
<td>18.0</td>
</tr>
<tr>
<td>1920</td>
<td>261.4</td>
<td>62.5</td>
<td>66.7</td>
<td>96.5</td>
<td>35.7</td>
</tr>
<tr>
<td>1921</td>
<td>590.4</td>
<td>70.4</td>
<td>100.3</td>
<td>418.4</td>
<td>1.5</td>
</tr>
<tr>
<td>1922</td>
<td>455.5</td>
<td>74.3</td>
<td>163.5</td>
<td>205.4</td>
<td>12.2</td>
</tr>
<tr>
<td>1923</td>
<td>283.8</td>
<td>114.7</td>
<td>37.7</td>
<td>92.2</td>
<td>39.2</td>
</tr>
<tr>
<td>1924</td>
<td>654.4</td>
<td>104.9</td>
<td>152.7</td>
<td>385.9</td>
<td>10.9</td>
</tr>
<tr>
<td>1925</td>
<td>368.6</td>
<td>133.7</td>
<td>121.8</td>
<td>72.7</td>
<td>40.4</td>
</tr>
<tr>
<td>1926</td>
<td>296.5</td>
<td>46.6</td>
<td>132.7</td>
<td>77.8</td>
<td>39.4</td>
</tr>
<tr>
<td>1927</td>
<td>621.1</td>
<td>157.8</td>
<td>185.8</td>
<td>250.4</td>
<td>27.1</td>
</tr>
<tr>
<td>1928</td>
<td>573.7</td>
<td>173.6</td>
<td>267.4</td>
<td>51.7</td>
<td>81.0</td>
</tr>
<tr>
<td>1929</td>
<td>344.0</td>
<td>53.2</td>
<td>45.1</td>
<td>65.2</td>
<td>180.1</td>
</tr>
<tr>
<td>1930</td>
<td>760.5</td>
<td>159.2</td>
<td>129.6</td>
<td>299.4</td>
<td>172.3</td>
</tr>
<tr>
<td>1931</td>
<td>396.6</td>
<td>25.3</td>
<td>191.3</td>
<td>108.6</td>
<td>71.4</td>
</tr>
<tr>
<td>1932</td>
<td>63.5</td>
<td>15.9</td>
<td>17.9</td>
<td>14.4</td>
<td>15.3</td>
</tr>
<tr>
<td>1933</td>
<td>115.7</td>
<td>54.3</td>
<td>38.7</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>1934</td>
<td>246.6</td>
<td>40.0</td>
<td>153.4</td>
<td>22.8</td>
<td>12.9</td>
</tr>
<tr>
<td>1935</td>
<td>170.4</td>
<td>136.4</td>
<td>18.7</td>
<td>15.2</td>
<td>0.1</td>
</tr>
<tr>
<td>1936</td>
<td>680.5</td>
<td>142.3</td>
<td>256.0</td>
<td>192.0</td>
<td>90.2</td>
</tr>
<tr>
<td>1937</td>
<td>194.3</td>
<td>48.3</td>
<td>0.7</td>
<td>92.6</td>
<td>52.7</td>
</tr>
</tbody>
</table>

Source: W. Bradock Hickman, Statistical Measures of Corporate Bond Financing Since 1900, at 135 (1960).

nity to reform their capital structures—were no better positioned to face financial hardship than railroads that had never defaulted. For example, as shown in Table 2, in June 1917 the Missouri Pacific emerged from a two-year receivership under a plan that left in place more than $128 million in bonds and equipment obligations. The plan also provided for almost $98 million in new secured debt and more than 71 million shares of cumulative 5% preferred stock, both issued in exchange for old securities. Thus, more than $225 million in secured debt and a sizable block of cumulative preferred stock were stacked against a railroad that the federal government would estimate,
one year later, possessed operating assets worth just over $250 million. Combined with the repeated instances of financial distress among railroads, financial structures like these call into question the efficacy of the railroad receivership as a device for solving a firm's financial problems.

**Table 2: Missouri Pacific Railroad Financial Structure**

<table>
<thead>
<tr>
<th>Amount</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>$125.5 million</td>
<td>Pre-receivership Bonds*</td>
</tr>
<tr>
<td>$  3.7 million</td>
<td>Pre-receivership Equipment Trust Certificates and similar obligations</td>
</tr>
<tr>
<td>$ 51.4 million</td>
<td>General Mortgage 4% Bonds</td>
</tr>
<tr>
<td>$ 46.9 million</td>
<td>First and Refunding Mortgage 5% Bonds</td>
</tr>
<tr>
<td>$ 71.8 million (par value)</td>
<td>5% Cumulative Preferred Stock</td>
</tr>
<tr>
<td>$ 82.8 million (par value)</td>
<td>Common Stock</td>
</tr>
</tbody>
</table>

*Includes $34.5 million of River & Gulf Division First Mortgage 4% Bonds issued in 1903; remainder unidentified.
Data as of June 30, 1917.

Source: Floyd W. Mundy, Mundy's Earning Power of Railroads 384–86 (Floyd W. Mundy ed., 1922).

The third important aspect of railroad finance in the early twentieth century was the reduced reliance on market financing. Instead, as the century progressed, railroads increasingly turned to internal sources of funding. In an impressive study undertaken for the National Bureau of Economic Research and published in 1960, Melville J. Ulmer found that in the 1880s railroads secured 90% of their funding from the sale of stocks and bonds. By the 1910s, however, internal funding sources provided more than 40% of a railroad's required funds. Furthermore, between 1921 and 1940, the vast majority of a railroad's funds—approximately 95%—were generated internally.

While several explanations probably account for this trend, contemporary commentators understood that railroad securities were not as attractive as they had once been. Benjamin F. Bush, receiver for the Missouri Pacific, noted to the Commercial Club of St. Louis that the increasing returns on railroad security investments, which had served to attract capital, were no longer present in 1915.

88 See Mundy's Earning Power of Railroads 63 (Floyd W. Mundy ed., 1928) (reporting that the ICC had issued a preliminary valuation for the road of just over $250.8 million as of June 30, 1918). Congress required that the Interstate Commerce Commission determine the "fair value" of the nation's railroads by the Valuation Act of 1913, Pub. L. No. 62-400, § 19a, 37 Stat. 701, 701 (1913).
90 See id. at 155.
91 See id. at 156.
92 See Benjamin F. Bush, Why Are Several Large Western Railroad Systems in Receivers' Hands? 13 (1915) (pamphlet, on file with author).
As Figures 3 and 4 reflect, railroad debt costs increased in the years between the Wars. This situation would have pushed managers to find other sources of funds, possibly even at the expense of reducing direct dividend payments to shareholders.

Moreover, the rail industry had undergone a significant change in ownership during the 1890s. At the turn of the twentieth century the railroad industry coalesced around five to seven control groups.93 By 1906, seven interest groups controlled approximately two-thirds of the nation’s 230,000 miles of track, and “claimed 85 percent of the industry’s earnings” that year. See C. Joseph Pusateri, A History of American Business 171–72 (1984); see also William G. Roy
The railroad receiverships of the 1890s contributed to this concentration by giving financiers an opportunity to consolidate the rail industry and minimizing management's opportunities to engage in harmful rate wars.\textsuperscript{94} The consolidation also reflected a larger effort by certain investors, including J.P. Morgan and E.H. Harriman, and corporate groups such as the Pennsylvania Railroad, to control coal, steel, and other key industries in the United States.\textsuperscript{95} Railroads, as the only viable mode of transportation, were an integral part of these industries, although extreme attempts at consolidation would eventually run afoul of the Progressive Era's "trust busting" tendencies.\textsuperscript{96} This trend toward consolidation may have allowed some groups to internalize their funding needs, much like the conglomerates of the 1960s.\textsuperscript{97}

Taken together, the second and third points discussed above show a possible overarching trend toward increased use of debt in a constricting pool of outside railroad financing. More generally, all three of the foregoing points suggest the importance of precision when addressing railroad finance during the late 1800s and early 1900s, as the concurrent effects of regulation, industry consolidation, and increased competition for investor dollars made railroad finance at the beginning of the period almost unrecognizable by the end. Broad generalizations, based on accounts of practices that may have

\textsuperscript{94} See Pusateri, supra note 93, at 168–70 (discussing the move from informal agreements, to pooling arrangements, to consolidation in response to rate competition).

\textsuperscript{95} See Frank Haigh Dixon, The Economic Significance of Interlocking Directorates in Railway Finance, 22 J. Pol. Econ. 937, 946 (1914) ("[T]he small group of men which controls the United States Steel Corporation, itself an owner of important railways, are directors in twenty-nine railway systems having 126,000 miles of line—more than half the railway mileage of the United States."); G. O. Virtue, The Anthracite Combinations, 10 Q. J. Econ. 296, 296 (1896) ("These combinations have not been simply combinations of producers for the control of a trade, nor have they been merely pooling arrangements of carriers. [The peculiarity] is in the fact that both mining and transportation powers have been enjoyed by several of the large companies . . . ."); see also Nell Irvin Painter, Standing at Armageddon: The United States, 1877–1919, at 184 (1987) (noting that the United Mine Workers claimed that J.P. Morgan used his joint ownership of railroads and coal mines to hide the mines' profitability); Ripley, supra note 47, at 425 ("The prevalence of interlocking directorships, not only among railroads but also between them and the great banking and industrial companies, has been forcibly brought to public attention of late in connection with the further Federal regulation of monopoly by amendment of the Anti-Trust law.").

\textsuperscript{96} See, e.g., United States v. Union Pac. R.R. Co., 226 U.S. 61, 95–98 (1912) (holding that the Union Pacific Railroad's purchase of forty-six percent of the Southern Pacific Company violated the Sherman Antitrust Act); Stuart Daggett, The Decision on the Union Pacific Merger, 27 Q. J. Econ. 295 (1913) (commenting on the Supreme Court's decision ordering the dissolution of the Harriman railroad empire).

\textsuperscript{97} See generally R. Glenn Hubbard & Darius Palia, A Reexamination of the Conglomerate Merger Wave in the 1960s: An Internal Capital Markets View, 54 J. Fin. 1131 (1999) (arguing that conglomerates succeeded in the 1960s because they were able to overcome the problems of underdeveloped external capital markets).
been prevalent in the nineteenth century, are unlikely to capture the true nature of railroad finance—and thus railroad reorganization—in any sort of spatio-temporal manner.

B. Railroad Financial Distress (the Railroad Receivership)

While the United States enacted its first permanent bankruptcy statute in 1898, the Bankruptcy Act did not permit the reorganization of large corporations and expressly excepted railroads from its scope. Corporate reorganization under federal statutes would not come until the 1930s. In the case of the railroads, it would come with the enactment of section 77 of the Bankruptcy Act in 1933. Even

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As the leading bankruptcy treatise explains, before the Great Depression... it was possible to effect an arrangement for corporate rehabilitation—as distinguished from pure liquidation—in one of three major ways: (1) through a voluntary arrangement entered into between the debtor and its creditors; (2) through formal bankruptcy procedure, either by using the composition section of the Bankruptcy Act (Section 12) or by employing the bankruptcy sale as a means of purchasing the assets of the debtor, with the creditors and sometimes the stockholders participating under some sort of an arrangement; or (3) through an equity receivership obtained on a creditor’s bill, pursuant to which the business continued operating under the supervision of a receiver appointed by the court... Of these methods, the equity receivership, particularly as administered in the federal courts, was the more feasible and came to be most frequently employed.

7 Collier on Bankruptcy ¶ 1100.11[1], at 1100–36 (15th ed. 2003) (footnotes omitted). Interestingly, while the 1898 Act excluded railroads from its scope, the earlier 1867 Bankruptcy Act, which was repealed in 1878, contained no such exclusion and railroads occasionally filed thereunder. See, e.g., In re Boston, Hartford & Erie R.R. Co., 3 F. Cas. 951, 951 (C.C.S.D.N.Y. 1872) (No. 1,678); see Skeel, Debt’s Dominion, supra note 1, at 54.


[Section 77 was originally added to the Bankruptcy Act in 1933 and completely rewritten in 1935 for purposes of rearrangement, simplification, and clarification. Additional amendments to various subdivisions of section 77 were enacted in 1936, 1939, 1951, 1958, and in 1962. Interestingly, the Chandler Act of 1938 which was an extensive rewriting of the entire Bankruptcy Act did not make any changes wherever in section 77.

Report of the Commission on the Bankruptcy Laws of the United States 284 (1973) (footnotes omitted); see also Max Lowenthal, The Railroad Reorganization Act, 47 Harv. L. Rev. 18, 23–58 (1933) (discussing the Act’s effect on reorganization procedures); Churchill Rodgers & Littleton Groom, Reorganization of Railroad Corporations Under Section 77 of the Bankruptcy Act, 33 Colum. L. Rev. 571, 571–75, 582–616 (1933) (same).
then, the immediate effects were limited since the average large railroad that entered section 77 during the Depression would spend more than seven and a half years under bankruptcy court protection.\textsuperscript{100} No major railroad completed a section 77 reorganization until the 1940s.\textsuperscript{101}

Long before 1898, however, attorneys and investment bankers realized that the routine liquidation of railroads would destroy a considerable amount of going concern value.\textsuperscript{102} Additionally, courts routinely referred to railroads as "utilities" that simply could not be allowed to fail.\textsuperscript{103} By the panic of 1857, these concerns led to general acceptance of the railroad or equity receivership,\textsuperscript{104} which remained the predominant means of corporate reorganization until the New Deal and the enactment of section 77.\textsuperscript{105}

A receivership was commenced by an unsecured creditor's petition\textsuperscript{106} asking a court to exercise its equity jurisdiction and appoint a

\textsuperscript{100} See Edward T.P. Watson, Distribution of New Securities in Sec. 77 Reorganizations, 5 J. Fin. 337, 337 (1950) (explaining several factors that contributed to slow reorganizations under section 77).

\textsuperscript{101} See de Haas Dembitz, supra note 62, at 399–94.

\textsuperscript{102} See Henry H. Swain, Economic Aspects of Railroad Receiverships, 3 Econ. Stud. 53, 73 (1898) (noting that some receiverships occurred as early as the late 1830s); see also Walter W. Miller, Jr., Bankruptcy's New Value Exception: No Longer a Necessity, 77 B.U. L. Rev. 975, 976–77, 981–82 (1997) (discussing methods of maintaining value and special treatment railroads received when reorganizing).

\textsuperscript{103} See Armistead B. Rood, Protecting the User Interest in Railroad Reorganization, 7 Law & Contemp. Probs. 495, 496–98 (1940); see also Louisville Trust Co. v. Louisville, New Albany & Chi. Ry. Co., 174 U.S. 674, 682 (1899) (arguing that "a railroad is not simply private property, but also an instrument of public service" and that these facts "justify a limited displacement of contract and recorded liens"); Cent. Bank & Trust Co. v. Greenville & W. R.R. Co., 248 F. 350, 352 (W.D.S.C. 1917) ("Persons in private business may abandon it at their whim or pleasure. Not so with a railroad. It is a public highway."); cf. Cont'l Nat'l Bank & Trust Co. v. Chi., Rock Island & Pac. Ry. Co., 294 U.S. 648, 671 (1935) (stating that protection of the public interest was a factor to be considered in reorganization and which required the railroad to be continued in operation as a going concern); Reconstruction Fin. Corp. v. Denver & Rio Grande W. R.R. Co., 328 U.S. 495, 536 (1946) (stating that investment in a railroad involves "the risk that in any depression or reorganization the interests of the public would be considered as well as [the interests of investors]").

\textsuperscript{104} See GREENBERG, supra note 41, at 24 ("When the country slumped into depression after the panic of 1857, [bankers] took further steps to protect bondholder interests and gained their first experience in the intricacies of railroad bankruptcy, receivership, and reorganization."). The first reorganization through receivership is often said to have occurred in 1845, when a Georgia court appointed a receiver over the insolvent Munroe Railway Co. and successfully reorganized it as the Macon & Western Railroad. See Macon & W. R.R. Co. v. Parker, 9 Ga. 377, 389–92 (Ga. 1851).


\textsuperscript{106} The Wabash receivership is often said to be the first case to allow the debtor to initiate its own receivership, thereby moving railroad reorganization closer to modern chapter 11 practice. Wabash, St. Louis & Pac. Ry. Co. v. Cent. Trust Co., 22 F. 272, 272–75 (C.C.E.D. Mo. 1884); see, e.g., Albro Martin, Railroads and the Equity Receivership: An Essay on Institutional Change, 34 J. Econ. Hist. 685, 685–86 (1974); Skeel, Evolutionary Theory, supra note 1, at 1357 n.113; Ann Woolhandler, The Common Law Origins of Constitutionally Com-
receiver to take control of the debtor's assets. An unsecured creditor was needed to ensure that the receiver gained control of all of the debtor's property, not just the property covered by a particular mortgage. Although state-court receiverships were possible and quite common, especially for smaller railroads, bondholders generally preferred to proceed in federal court, so it was also important to select a petitioning creditor who would not destroy diversity jurisdiction.

The debtor railroad would then file an answer admitting the allegations of the creditor's complaint, obviating the need for the unsecured creditor to have previously obtained a judgment on its debt. Subsequently, the court would appoint one or more receivers to take control of the debtor's property—routinely an officer or other insider, though often an independent co-receiver was also appointed to guard against self-dealing.

Once a court granted the primary petition, the creditor would file ancillary receiverships in all other relevant jurisdictions because,

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*See* Central Life Assurance Co. v. Smith, 236 F.170, 173-74 (7th Cir. 1916); *see also* Edward Sherwood Mead, *Corporate Finance* 406-12 (rev. ed. 1920) (describing the process used to commence a receivership).

*See* James Byrne, *The Foreclosure of Railroad Mortgages in the United States Courts, in Some Legal Phases of Corporate Financing, Reorganization and Regulation* 77, 79-81 (1929) (explaining that unsecured creditors were used to reach all property and assets controlled by the railroad, and not just the property subject to one specific mortgage).

*See id.* at 80-81; Warner Fuller, *The Background and Techniques of Equity and Bankruptcy Railroad Reorganizations—A Survey*, 7 LAW & CONTEMP. PROBS. 377, 379 (1940). Controversy about venue shopping seems to have been as acute then as it is today. See Thomas Clifford Billig, *Corporate Reorganization: Equity vs. Bankruptcy*, 17 MINN. L. REV. 237, 253-54 (1933) ("The United States district court for the southern district of New York is the popular eastern forum for equity receivership cases. Yet, certainly not one [debtor] in ten, and possibly not one in fifty is a New York corporation.").

Edward H. Levi & James Wm. Moore, *Bankruptcy and Reorganization: A Survey of Changes* (pt. 2), 5 U. CHI. L. REV. 219, 225 (1937) ("The defect of a lack of a judgment creditor with execution returned unsatisfied . . . was . . . cured by the debtor's consent to the appointment of a receiver."). Before the device of debtor's consent was perfected, management would ask a friendly creditor "to file a general creditor's bill [for appointment of a receiver]." Byrne, *supra* note 108, at 90.

*Byrne, supra* note 108, at 91 ("Usually it is of importance, and the court is willing, that some one connected with the railroad in an operating capacity should be a receiver. The court ordinarily appoints as a co-receiver some one not previously connected with the railroad of whose fitness it has personal knowledge."); see also *Paul D. Cravath, The Reorganization of Corporations, in Some Legal Phases of Corporate Financing, Reorganization and Regulation, supra* note 108, at 153, 160 (noting this was the regular practice in the Southern District of New York).
in the absence of legislation, even a federal court could only exercise its equitable powers over property within its district.\textsuperscript{112} One or more classes of secured bondholders would then institute foreclosure actions, but these suits would proceed no further than their initiation until the various bondholders and management agreed upon a reorganization plan.\textsuperscript{113}

The railroad’s managers and its investment bankers would then race to form committees for each class of the railroad’s securities, and the committees then solicited deposits of these securities.\textsuperscript{114} The railroad’s own investment bankers had “fairly complete and accurate lists of bondholders, lists which [gave] them the inside track in soliciting deposits and proxies.”\textsuperscript{115} Once established, the committees worked to negotiate a reorganization plan on behalf of the holders who had deposited with that committee—although often the outlines of a plan had already been created by the railroad and its bankers.\textsuperscript{116} The various committees would agree upon a reorganization plan, and then appoint a new, blanket reorganization committee to effectuate the plan.\textsuperscript{117}

\textsuperscript{112} See Great W. Mining & Mfg. Co. v. Harris, 198 U.S. 561, 577 (1905); Booth v. Clark, 58 U.S. (17 How.) 322, 329–39 (1855). Before 1912, a circuit judge could enter an order commencing the receivership in all districts within the circuit, which provided a further advantage to proceeding in federal court. Byrne, supra note 108, at 92–93; Cornelius W. Wickersham, Primary and Ancillary Receiverships, 14 Va. L. Rev. 599, 602–04 (1928).

\textsuperscript{113} See Frederick A. Cleveland & Fred Wilbur Powell, Railroad Finance 246 (1914); see also Can. S. Ry. Co. v. Gebhard, 109 U.S. 527, 539 (1883) (“[F]or it rarely happens in the United States that foreclosures of railway mortgages are anything else than the machinery by which arrangements between the creditors and other parties in interest are carried into effect, and a reorganization of the affairs of the corporation under a new name brought about.”).

\textsuperscript{114} See Hastings Lyon, Corporation Finance: Distributing Securities Reorganizations (pt. 2) 230 (1916) (“At the same time that the creditor’s bill making the application for receivership was being prepared the management was also forming a bondholders’ protective committee.”); Fuller, supra note 109, at 381. A 1930s commentator on railroad investments explained that the deposit process

\textsuperscript{115} Paul M. O’Leary, The Role of Banking Groups in Corporate Reorganizations, 29 Am. Econ. Rev. 337, 338 (1939).


\textsuperscript{117} See Cravath, supra note 111, at 171–73. In some cases it was apparently possible for a receiver to serve on the committee, a situation fraught with obvious conflicts of interests:
While the focus of this Article is on the railroad’s financial restructuring, receiverships also facilitated operational restructuring within the broader limits imposed by the general rule that the railroad could not cease its operations in any significant respect.\textsuperscript{118} For example, through the use of receiver certificates—essentially notes issued to cover expenses incurred during the receivership, which typically had priority over preexisting debts\textsuperscript{119}—the receiver could finance the purchase of new rolling stock and the refurbishment of existing facilities.\textsuperscript{120} The receiver also had the ability to assume and reject contracts and leases.\textsuperscript{121}

To implement the agreed-upon reorganization plan, the foreclosure sale would recommence and the railroad’s assets would be sold to a new legal entity.\textsuperscript{122} In most cases, however, the purchasing party represented the reorganization committee, which was allowed to “credit bid” the face amount of the securities that the bondholders had deposited with the committee.\textsuperscript{123} Few third-parties, faced with the need to pay cash, could afford to match the committee’s supply of unpaid bonds.\textsuperscript{124} Many also suspected that collusion among bankers kept outside bidders from obtaining the needed financing.\textsuperscript{125} Although no formal discharge was possible without statutory authority,
upon sale the pre-receivership claims would be effectively discharged since the claims were against a corporate shell that no longer owned any assets.

One of the most controversial features of receiverships was the frequency with which existing shareholders were able to maintain their position in the reorganized railroad, despite the failure to pay creditors in full.126 These shareholders were given stock in the new railroad in exchange for paying an assessment, which helped provide liquidity to the reorganized entity.127 The old shareholders typically also received subordinated notes or preferred stock upon payment of the assessment.128

For example, under the St. Louis & San Francisco’s November 1, 1915 reorganization plan, existing shareholders who paid an assessment of $500 per share received $500 in junior secured notes and 820 shares of the new common stock.129 Given the parity between the new debt and the assessment, it appears that the old shareholders, or at least the ones who could afford the assessment, were retaining equity in the reorganized firm without paying for it—and doing so at the expense of unpaid creditors who could have otherwise received the new stock in the reorganization.

A similar result can be seen in the Pere Marquette Railroad’s October 30, 1916 reorganization plan, which provided that preferred and common shareholders could pay an assessment of $97.50 per $1000 of shares owned and receive a bundle of new preferred and common stock with a combined par value of $300.130 Likewise, the Missouri, Kansas & Texas Railroad’s 1921 reorganization plan provided that common shareholders could pay an assessment of $2,500 per 100 shares held ($10,000 par value) and receive $1,400 in secured bonds, $600 in income bonds, and 100 shares of common stock in the reorganized railroad.131 The plan contained no indication that the effective price of $5 per share reflected the value of the railroad, and although the unsecured creditors objected, the plan was upheld by the Eighth Circuit.132

This aspect of receiverships particularly irked the Realists-New Dealers, who saw nothing more than a blatant attempt to favor well-

126 See Baird & Rasmussen, Control Rights, supra note 1, at 931.
127 See id. at 932.
128 See id.
129 EARNING POWER OF RAILROADS 378–79 (Floyd W. Mundy ed., 1919).
130 Id. at 293–94.
131 See PAYNE, supra note 18, at 239, 249–51.
132 See Kan. City Terminal Ry. Co. v. Cent. Union Trust Co., 28 F.2d 177, 188 (8th Cir. 1928) ("[B]ecause the [common] stockholders, in order to obtain any participation, were compelled to further invest to the extent of . . . 25 per cent . . . of the par value of the participating stock, we conclude that there is no doubt as to the fairness of this offer to the unsecured creditor.").
connected shareholders over smaller bondholders and trade creditors.\textsuperscript{133} The participants in receiverships, on the other hand, defended the practice, alleging that the stockholders' cash infusion "can be obtained only by a plan which gives the stockholders something of definite value, over and above what they pay for."\textsuperscript{134}

The substantial assessment required for continued participation in the railroad's future (not unlike the use of reverse stock-splits today) may have been a thinly disguised means of squeezing out smaller stakeholders unable to afford the assessment, especially during an economic downturn.\textsuperscript{135} This interpretation finds support in a 1910 \textit{Yale Law Journal} article, whose author complained that

\begin{quote}
\text{in many instances such [receivership] proceedings are instituted solely for the purpose of repudiating unsecured claims or depriving minority stockholders, and at times all stockholders, of their interest, for the benefit of a few. A resort to receiverships has become quite common, especially when the holders of a large amount of the stock of the corporation are also the holders of the secured indebtedness. In such cases a reorganization is effected upon terms most favorable to these large holders by making heavy assessments on the stock or even bonds, and excluding all who are unwilling to submit to these terms, from participation in the reorganization.}\textsuperscript{136}
\end{quote}

Moreover, at least until the Supreme Court's decision in \textit{Boyd},\textsuperscript{137} unsecured creditors of all types were generally excluded from the reor-

\textsuperscript{133} Baird and Rasmussen's contention that retention of old shareholders "ensured the ongoing participation of the old managers" in the reorganized railroad is unconvincing, given their simultaneous acknowledgment that managers "did not, however, own anywhere near a majority of the shares." Baird & Rasmussen, \textit{Control Rights}, supra note 1, at 929 n.29 & 992. There were certainly more direct ways to ensure continued management participation, such as retention bonuses, that would not have conferred a windfall on the large pool of non-managerial shareholders. For a recent discussion of retention bonuses, see David A. Skeel, Jr., \textit{Creditors' Ball: The "New" New Corporate Governance in Chapter 11}, 152 U. PA. L. REV. 917, 926-30 (2004). \textit{See also A. Mechele Dickerson, A Behavioral Approach to Analyzing Corporate Failures}, 38 \textit{Wake Forest L. Rev.}, 1, 36-37 (2003) (arguing that although the use of retention bonuses indicates some short-term value in retaining management, managers have greater incentives to delay bankruptcy proceedings since they will likely "be replaced if their firms are placed in bankruptcy").

\textsuperscript{134} Swaine, \textit{supra} note 59, at 915.

\textsuperscript{135} \textit{Cf.} Albert V. House, Jr., \textit{Post-Civil War Precedents for Recent Railroad Reorganization}, 25 \textit{Miss. Valley Hist. Rev.} 505, 507 (1939) ("Above all, it becomes clear that control of the new company has been regarded as the most important of the stakes of reorganization.").

\textsuperscript{136} Jacob Trieber, \textit{The Abuses of Receiverships}, 19 \textit{Yale L.J.} 275, 276-77 (1910).

\textsuperscript{137} N. Pac. Ry. Co. v. Boyd, 228 U.S. 482, 509-10 (1913); see Baird & Rasmussen, \textit{Boyd's Legacy}, \textit{supra} note 1, at 398 (suggesting \textit{Boyd} "is perhaps the most important bankruptcy opinion of the last century"). In \textit{Boyd}, stockholders had been allowed to participate in the reorganization of the Northern Pacific Railroad upon paying a cash assessment, while certain unsecured creditors were excluded from the plan. \textit{See Boyd}, 228 U.S. at 504. After the plan succeeded, Boyd, an unsecured creditor, sued the reorganized railroad on the theory that stockholders had received assets which belonged to the unsecured creditors. \textit{See id.} at 498-99. The Court held that a transfer by existing stockholders to themselves could not defeat the claim of a dissenting creditor. \textit{Id.} at 502. Essentially, \textit{Boyd} is a kind of fraudulent
ganization altogether. Even after Boyd, there is good reason to doubt that unsecured creditors received markedly better treatment. For example, as late as 1934 Henry J. Friendly argued that a plan giving shareholders securities with a priority above those given to creditors would not violate the Boyd decision if "the offer made to stockholders does not go beyond what is reasonably necessary to procure its acceptance [by shareholders] and the payment of the required funds."

Recent scholars have sometimes implied that these sorts of "freeze out" issues were not appreciable since unsecured creditors were protected by various early or priority payment rules. To some extent these rules would have helped many unsecured trade credi-
but modern scholarship has overstated the reach of these rules.

The payment of certain trade creditors ahead of secured bondholders was justified by what we would today call implied consent. As the Supreme Court explained in 1878:

The business of all railroad companies is done to a greater or less extent on credit. This credit is longer or shorter, as the necessities of the case require; and when companies become peculiarly embarrassed, it frequently happens that debts for labor, supplies, equipment, and improvements are permitted to accumulate, in order that bonded interest may be paid and a disastrous foreclosure postponed, if not altogether avoided. In this way the daily and monthly earnings, which ordinarily should go to pay the daily and monthly expenses, are kept from those to whom in equity they belong, and used to pay the mortgage debt. The income out of which the mortgagee is to be paid is the net income obtained by deducting from the gross earnings what is required for necessary operating and managing expenses, proper equipment, and useful improvements. Every railroad mortgagee in accepting his security impliedly agrees that the current debts made in the ordinary course of business shall be paid from the current receipts before he has any claim upon the income.\textsuperscript{142}

Thus the "six month rule" allowed for the priority payment of operating expenses—defined as claims for wages, supplies, services, and traffic balances—so long as the claims were not stale.\textsuperscript{143} This benefit was later expanded under the "doctrine of necessity" to include those trade creditors who had enough power to make future operations difficult, even if they did not fit strictly within the bounds of the original six month rule.\textsuperscript{144}

\textsuperscript{141} Byrne, supra note 108, at 119 (suggesting that "in the ordinary receivership of a railroad, the majority of the unsecured claims are given priority.").

\textsuperscript{142} Fosdick v. Schall, 99 U.S. 235, 252 (1878) (emphasis added). The doctrines described in this section of the Article continue to cause confusion and controversy to this day. See, e.g., In re KMart Corp., 359 F.3d 866, 868–74 (7th Cir. 2004).

\textsuperscript{143} Thomas v. Peoria & Rock Island Ry. Co., 36 F. 808, 819 (C.C.N.D. Ill. 1888) ("It would not do to charge the income of mortgaged railroad property, managed by a receiver, or the property itself, with every debt incurred in all its previous history for labor, supplies, or equipment."). In fact, the six-month period for determining whether a debt was "current" and thus entitled to priority was not considered absolute, and courts were instructed to consider each claim on its merits. See S. Ry. Co. v. Carnegie Steel Co., 176 U.S. 257, 289–97 (1900). The present chapter 11 incorporates the six-month rule through a rather vague statutory provision, applicable only to railroads. See 11 U.S.C. §§ 103(g), 1171(b) (2000).

\textsuperscript{144} See Miltenberger v. Logansport Ry. Co., 106 U.S. 286, 310–12 (1882); Benjamin Wham, Preference in Railroad Receiverships, 23 Ill. L. Rev. 141, 147 (1928) ("[T]he necessity of payment" theory admits to preference claims which do not necessarily possess the characteristics required for preference...so long as the claimant is in position to demand payment as the price of future labor and materials."); see also In re Boston & Maine Corp., 634 F.2d 1559, 1370 (1st Cir. 1980) ("Miltenberger is concerned, not with the 'diversion' precept of Fosdick, but with the more general authority of the receivership court to accord
Excluded from these rules were unsecured claims for goods and services related to new construction, breach of contract, personal injury, and other torts, including those related to the loss of goods given to the railroad for shipment. Thus, there were undoubtedly some unsecured creditors left unpaid after a receivership, including most involuntary creditors. Moreover, it is doubtful that only a few stakeholders had a reorganization plan imposed on them against their will, especially since receiverships lacked the procedural safeguards built into present-day chapter 11.

Since there was no formal voting on the reorganization plan, even among those classes of creditors directly addressed in the plan, dissent or consent to the plan was accomplished by depositing or withholding securities from the committee. Claimants could also withdraw their previously deposited securities, but were strongly discouraged from doing so by deposit agreements that assessed withdrawing claimants for a portion of the committee’s professional fees.

priority status to pre-receivership claims in order to prevent the stoppage of a business impressed with the public interest.”).

See Robert T. Swaine, Reorganization—The Next Step: A Reply to Mr. James N. Rosenberg, 22 COLUM. L. REV. 121, 129–30 (1922) (”The so called ‘six months rule’ . . . applies only to claims for materials delivered or services rendered in connection with maintenance and operation. In other words it does not apply to claims on account of new construction.” (footnote omitted)); see also Lackawanna Iron & Coal Co. v. Farmers’ Loan & Trust Co., 176 U.S. 298, 317 (1900) (holding that supplier of rails for major improvements was not ordinary course trade creditor entitled to protection of the six-month rule).


See, e.g., Farmers’ Loan & T. Co. v. Green Bay, Winoa & St. Paul Ry. Co., 45 F. 664, 667 (C.C.D. Wis. 1891) (holding wrongful death action, based on tort committed within six months of receivership, was not subject to six-month rule).

Payne, supra note 119, at 691 (”The argument against [the tort creditor] is a negative one. He cannot claim any of the grounds for preference given to supply creditors. The liability to him is not, in theory, an ‘expense of operation.’”).


See, e.g., 11. U.S.C. § 1125(b) (2000) (stating that any solicitation of votes on a plan must be accompanied by a court-approved disclosure statement); § 1129(a)(7) (stating that all chapter 11 plans must provide every creditor with at least as much as the creditor would have received in a liquidation); § 1129(b) (stating that a plan can only be confirmed over a class’s objection if it does not discriminate against that class and it is “fair and equitable”).

See William O. Douglas, Protective Committees in Railroad Reorganizations, 47 HARV. L. REV. 565, 570 (1934) (”The large number of depositors, their notorious inertia and failure to respond, and the difficulty of reaching them make it necessary to adopt a rather simple rule of thumb to determine whether they have or have not accepted the plan. The failure to withdraw probably is one of the few satisfactory rules of thumb available.” (footnotes omitted)).

See SECURITIES AND EXCHANGE COMMISSION, REPORT ON THE STUDY AND INVESTIGATION OF THE WORK, ACTIVITIES, PERSONNEL AND FUNCTIONS OF PROTECTIVE AND REORGANIZATION COMMITTEES: PART I—STRATEGY AND TECHNIQUES OF PROTECTIVE AND REORGANIZATION COMMITTEES 889 (1937); see also Leiman v. Guttman, 336 U.S. 1, 6–7 (1949) (explaining
Dissents were also ostensibly protected by an "upset price," set by the court, which represented the minimum the railroad could sell for at the sale—somewhat like an auction reserve.\footnote{See Dewing, supra note 116, at 29–31 ("In order to prevent the various parties . . . from conspiring together to purchase the property for little, and thus defeat the just claims of other creditors[,] . . . the court ordinarily fixes a minimum or 'upset' price.").} Claimants could either dissent and demand cash equal to their portion of the upset price, or could agree to the plan and receive securities in the new railroad that were invariably worth substantially more. Indeed, if the securities offered under the plan were not worth substantially more than the cash upset price, the number of bondholders demanding their share of the upset price would lead to the failure of the reorganization, for the simple reason that if the railroad could have afforded to pay a large number of its bondholders in cash, it would not have been in receivership in the first instance.

While upset prices may have initially protected minority creditors, by 1917 Learned Hand could, with more honesty than most, proclaim that "any upset price whatever is a concession to the known uselessness of an auction."\footnote{See Equitable Trust Co. v. W. Pac. Ry. Co., 244 F. 485, 504 (S.D.N.Y. 1917).} Commentators tended to agree, arguing that low upset prices, solely designed to pressure creditors to agree to the plan, were the norm.\footnote{See Joseph L. Weiner, Conflicting Functions of the Upset Price in a Corporate Reorganization, 27 Colum. L. Rev. 132, 145 (1927) (suggesting that "the upset price has ceased to be a protection for the minority, if it ever was one, and has become one of the most useful tools of the majority for forcing recalcitrants into line"). But see Samuel Spring, Upset Prices in Corporate Reorganization, 32 Harv. L. Rev. 489, 494 (1919) ("American courts have gone much too far in this solicitude for the interests of the minority. The fixing of an upset price to protect minority bondholders means the intervention of the court at the controlling moment of a reorganization with the purpose, or result, of defeating the control of the majority.").}

The receiverships tended to last for several years—sometimes many, many years. On the extreme end, the receiverships could outlast the careers of several receivers. For example, the Pittsburg, Shawmut & Northern Railroad, which operated approximately two hundred miles of track, was taken over by a receiver in 1905 and operated in this state until 1946.\footnote{See Cent. Trust Co. v. Pittsburg, Shawmut & N. R.R. Co. (In re Pittsburg, Shawmut & N. R.R. Co.), 75 F. Supp. 292, 293–94 (W.D. Pa. 1947).} The receivership was then converted into a section 77 bankruptcy case, and the railroad was abandoned shortly thereafter.\footnote{See id. at 294.}
RAILROAD RECEIVERSHIPS

TABLE 3: DURATION OF SAMPLE RECEIVERSHIPS
(DAYS TO DISCHARGE OF RECEIVER)

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1422.88</td>
<td>1246</td>
<td>837.62</td>
<td>25</td>
</tr>
</tbody>
</table>

Less anecdotally, key statistics regarding the length of the 25 primary receiverships in the present study are set forth in Table 3. The length of the receiverships in my sample ranged from slightly less than two years to more than eight years, with the mean (median) standing at 3.9 years (3.4 years). This is somewhat longer than the average duration that Henry H. Swain reports (between two and three years) in his more comprehensive study of the receiverships of the nineteenth century.\(^{158}\)

TABLE 4: DURATION OF CHAPTER 11 CASES
(DAYS TO CONFIRMATION OF PLAN)

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>521</td>
<td>432</td>
<td>448</td>
<td>440</td>
</tr>
</tbody>
</table>

Table 4 shows corresponding data from Lynn LoPucki’s Bankruptcy Research Database,\(^{159}\) which allows for a comparison of receiverships with the time spent in present-day chapter 11 cases. On average, receiverships were plainly much lengthier propositions than reorganization under the current chapter 11.

In many ways this delay was inherent in the function of receiverships. While much attention was given to the work done on a reorganized railroad’s financial structure, it was also understood that a receivership acted as a safe harbor during an economic downturn.\(^{160}\) A railroad could await an economic turnaround, free from harassment by creditors. Then the railroad could emerge from the receivership when improved market conditions would have the happy effects...

\(^{158}\) See Swain, supra note 102, at 103.

\(^{159}\) See Lynn M. LoPucki’s Bankruptcy Research Database, available at http://lopucki.law.ucla.edu (last visited Apr. 11, 2004). LoPucki’s WebBRD contains data on all large, public-company reorganization cases filed in the United States Bankruptcy Courts since October 1, 1980. The information presented in Table 4 is based on 569 total cases (as of June 30, 2002). Many thanks to Professor LoPucki for making his data available online.

\(^{160}\) Byrne, supra note 108, at 192 (commenting that “[b]ondholders and stockholders alike” may want to postpone a foreclosure sale, and the end of the receivership, “in order to find out what the railroad is capable of under favorable financial conditions”); see also Daggett (1908), supra note 22, at 27–28 (“The success of this Baltimore & Ohio reorganization plan was very largely due to the time at which it was put through. In other words, the reorganization was completed just when an unparalleled era of prosperity was fairly underway.”).
of improving the plan’s viability while also allowing it to avoid the sort of serious reductions in debt that might be warranted but would be strongly opposed by bondholders whose consent was required for plan confirmation.161 By the Great Depression, however, this model of receiverships as a holding pen for distressed railroads—which also carried over to the new section 77 proceedings—meant that many railroads would spend a decade or more under court protection.162

Similarly, while there is little data on the costs of receiverships during this period,163 the existing anecdotal evidence suggests that the costs were substantial.164 Turning back to the 1915–16 reorganization of the St. Louis & San Francisco, the railroad paid various attorneys—its own and those of its creditors—slightly more than $900,000 during the reorganization,165 representing approximately 3.5% of its pre-receivership assets.166 If the St. Louis and San Francisco example is typical of other receiverships, and the fees of non-legal professionals are included (especially bankers), the direct costs of receiverships would be substantially greater than those of today’s large chapter 11 cases, which studies have suggested cost about 2.5% of pre-bankruptcy assets.167

In short, receiverships were lengthy and perhaps quite expensive by modern standards. But were they effective? The next Part tackles that issue head-on.

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161 Cf. Manhattan Rubber Mfg. Co. v. Lucey Mfg. Corp., 5 F.2d 39, 43 (2d Cir. 1925) (Hough, J. dissenting) (referring to the parties to a receivership as “sitting under the chancellor’s ‘umbrella’ and watching the weather outside”).

162 See supra note 100 and accompanying text.


164 The House Judiciary Committee stated that one of the benefits of enacting section 77 would be that the statute would “put a stop to the wholesale plundering by reorganization managers, both by way of fees and for commissions covering new securities.” H.R. Rep. No. 72-1897, at 6 (1933). The Committee also noted that “[t]he protracted period of such administration, the duplication of expense incident to ancillary receiverships, the waste, the opportunity for manipulation on the part of special groups, are too well known to require comment.” Id. at 5.

165 SECURITIES AND EXCHANGE COMMISSION, supra note 152, at 219.

166 THE EARNING POWER OF RAILROADS 442 (Floyd W. Mundy ed., 1914) (reporting that as of June 30, 1913, the railroad had reported assets of more than $25 million in 1913 dollars).

167 See Lubben, Direct Costs, supra note 15, at 513 (finding that direct costs—professional fees—averaged 2.5% of assets if prepackaged cases were excluded from the sample); see also Lynn M. LoPucki & Joseph W. Doherty, The Determinants of Professional Fees in Large Bankruptcy Reorganization Cases, 1 J. EMPIRICAL L. STUD. 111, 140 (2004) (reporting that the average ratio of fees and expenses to assets in a sample of 48 chapter 11 cases was 2.2%).
III

AN EMPIRICAL ANALYSIS OF RAILROAD REORGANIZATION

A. The Sample

The sample began with 68 large railroads, and the final sample consists of 53 railroads. The initial railroads in the sample were those discussed by Stuart Daggett in his classic book on railroad reorganization in the 1890s and his 1918 article on railroad reorganization in the early 1900s. From those, however, I omitted the Kansas City, Mexico & Orient Railroad, for which data was unavailable. From Mundy's *Earning Power of Railroads* I then added to the sample all railroads with more than 500 miles of track in 1900 that were not already included in the two Daggett sources. This produced an initial sample of 68 railroads, comprised of those railroads that had gone through at least one receivership between 1890 and 1917 (the "Receivership Group")—initially consisting only of the Daggett railroads—and a control group of railroads drawn from Mundy's that had not gone through a receivership in this period (the "Control Group"). To maintain the dichotomy between the two halves of the sample, one of the railroads drawn from Mundy's was moved into the Receivership Group when further research revealed that it had gone through receiverships in the 1890s, although it was not covered in either of the Daggett sources.

Fifteen railroads were then removed from the initial sample because they did not continue to exist as separate entities in 1937 when

\[168\] Daggett (1908), *supra* note 22.

\[169\] Stuart Daggett, *Recent Railroad Failures and Reorganizations*, 32 Q. J. Econ. 446 (1918) [hereinafter, Daggett (1918)]. Daggett's article is limited to railroads with more than 500 miles of track at the time of their reorganization between 1908 and 1917. See id. at 449. In some instances, these railroads had less than 500 miles of track in 1900. See id.

\[170\] Arthur E. Stilwell, previously the promoter of the Kansas City Southern, built this railroad in the early 1900s with the intention of reaching the deep water port of Tampolobampo, Mexico, thus creating the shortest rail route from Kansas City to the Pacific coast. Construction delays, a shortfall of capital, the Mexican Revolution, and a lack of traffic led to receivership in 1912. The Santa Fe acquired it in 1928 and thereafter sold the Mexican portion. See Keith L. Bryant, Jr., *Arthur E. Stilwell, in Railroads in the Age of Regulation*, 1900–1980, at 423 (Keith L. Bryant, Jr. ed. 1988).

\[171\] Floyd W. Mundy was a member of Jas. H. Oliphant & Co., a brokerage firm located in New York and Chicago, and Mundy's yearly guide was a leading source of financial statistics during this era. In fact, it was one of the sources John Moody used to create his well-known bond rating system. See Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 Wash. U. L.Q. 619, 638 n.79 (1999) ("Moody relied heavily on reports published in 1906 and 1907 concerning the railroad industry, including 'The Earning Power of Railroads' by Floyd Mundy and 'American Railways as Investment' by Carl Snyder, each of which contained elaborate statistics on the railroad industry, including detailed operating and financial data.").

\[172\] The railroad in question is the Wisconsin Central. For a concise history of this railroad, and its 1879–99 receivership, see www.cn.ca/companyinfo/history/en_about_wc_wcr.shtml.
this study concludes. Two of these deleted railroads, one a Receiver-
ship Group and the other a Control Group railroad, were acquired
out of receiverships by the Baltimore and Ohio. One Control
Group railroad simply lacked complete financial information after
1930. All other deleted railroads would have been members of the
Control Group and were acquired by other Control Group railroads,
most often the New York Central or the Pennsylvania.

Following these adjustments, the Receivership Group is com-
prised of 25 railroads which went through one or more receiverships
between 1890 and the end of 1917. The Control Group consists of 28
railroads that did not go through a receivership during that same time
period. Together the entire sample consists of 53 of the largest rail-
roads at the turn of the twentieth century.

Financial data for all railroads in the sample was taken from sev-
eral editions of Mundy’s Earning Power of Railroads. Mundy’s is one of
the few continuous sources of data on individual railroads in the early
part of the twentieth century, as the Interstate Commerce Commiss-
ion’s reporting requirements (as well as the Commission’s power to
enforce those requirements) were not fully defined until after World
War I.

With the qualifications discussed in Section B below, I coded
fields for each railroad’s operating revenues, net income, and fixed
charges for all years between 1900 and 1937, save 1916 and 1918
through 1920. Additionally, I coded each railroad’s track mileage
for the years 1900, 1910, 1921, 1930, and 1940. Information on the
length of the primary receiverships for the Receivership Group, as
well as the number of receiverships and bankruptcies undergone by
all railroads between 1890 and 1937, were also coded.

To consider the effect of J.P. Morgan & Co.’s involvement with a
railroad, a subject of interest to current scholars, I also created a vari-
able to indicate whether or not the railroad was controlled by J.P. Mor-
gan & Co. in the years between 1900 and 1918. Unlike the prior
fields, which rely on information available in Mundy’s, information on

173 A full accounting of the omitted railroads is set forth in Appendix A, infra.
174 The original 1887 Act to Regulate Interstate Commerce required railroads to file
an annual report with the ICC. However, the ICC could not compel use of a uniform
reporting format until many years later. See generally Kumar Sivakumar & Gregory Way-
mire, Enforceable Accounting Rules and Income Measurement by Early 20th Century Railroads, 41 J.
ACCT. RES. 397 (May 2003) (discussing the ICC regulation of accounting standards in the
early twentieth century).
175 Defined as interest payments, lease payments, and taxes.
176 See infra Part III.B for a discussion of the reasons for omitting these years.
177 See Table 3, supra at p. 1451. As used in this Article, “primary receivership” refers to
the receivership covered by Daggett, even if the railroad had multiple receiverships be-
tween 1890 and 1917. In the case of the Wisconsin Central, see supra note 172, the term
refers to the 1879–1899 receivership.
J.P. Morgan & Co.'s involvement in a particular railroad's management was taken from Roy & Bonacich's study on "communities of interest,"\(^{178}\) supplemented with a variety of other sources.\(^{179}\)

For purposes of this variable, railroads that were controlled by Morgan-controlled railroads were deemed to be under the direct control of Morgan. For example, the Maine Central is considered to be a Morgan-controlled railroad, because the New York, New Haven & Hartford (a railroad under Morgan's direct control) controlled the Boston & Maine through its ownership of the Boston R.R. Holding Company, and Boston & Maine held a controlling interest in the Maine Central.\(^{180}\)

To the extent data were available, I also created variables that reflected the reduction of fixed charges (in percentage terms) resulting from the Receivership Group's primary receiverships, as well as the ratio of their fixed charges to gross income (total income less operating and maintenance expenses) shortly after the receivership. Data for the former variable was found in Daggett (1908)\(^ {181}\) and Daggett (1918).\(^ {182}\) Various editions of Mundy's provided data for calculation of the latter variable with respect to the railroads in Daggett (1918), with data for the railroads in Daggett (1908) coming from that source itself.\(^ {183}\) These two variables were coded for 19 of the 25 railroads in the Receivership Group.

An additional variable captures the real growth—or more often, decline—in the value of a railroad's publicly traded shares between

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\(^{178}\) See Roy & Bonacich, supra note 93, at 372, 373 tbl.1.


\(^{181}\) Daggett (1908), supra note 22, at 357.

\(^{182}\) Daggett (1918), supra note 169, at 468.

\(^{183}\) Daggett (1908), supra note 22, at 358.
1921 and the first five months of 1935. These data were available for 31 of the 53 railroads in the sample.

Finally, for a subset of the railroads, namely those listed on the New York Stock Exchange, I obtained data on the book value of common equity from 1926 through 1937. Kenneth R. French’s online library provided this data, and it contains hand-collected book equity values from Moody’s Transportation Manual published in June of each of the foregoing years. From this, I was able to obtain book value data for 37 of the 53 railroads in the sample, albeit with some missing years.

Once the data were entered for all 53 railroads in the sample, all dollar figures were standardized to 1900 dollars to allow for inter-year comparisons and to avoid the effects of inflation and deflation, which varied wildly between 1900 and 1937. This standardization was achieved by multiplying the dollar figures by an inflation factor derived from the annual average of the Consumer Price Index. For the twelve years before 1913, when the Consumer Price Index came into being, all dollars figures were adjusted using the annual average of the monthly Index of General Prices as calculated by the Federal Reserve Bank of New York.

B. Notes on Methodology

This Section details the significant decisions I made with respect to several key problems that arose during the data collection phase of the study.

First, no data were coded for 1918, 1919, and 1920. Following the United States’s entry into World War I, and the resulting severe gridlock in Eastern and Midwestern rail yards and boxcar shortages nationwide, the United States Railroad Administration assumed operational control of the nation’s railroads. This nationalization lasted for 26 months through March 1, 1920, more than a year after the

184 This data comes from Mundy’s.
187 Eighteen of these railroads are from the Receivership Group, and nineteen are from the Control Group.
188 One million dollars in 2003 would translate into $40,599.62 in “1900 Dollars” and $1 million in 1900 would be worth slightly more than $24.6 million today.
189 Both the Consumer Price Index and the Index of General Prices for the relevant years may be found at www.globalfindata.com (last visited Apr. 14, 2004).
November 11, 1918 armistice. Since the government attempted to run the railroads as a unified whole, inclusion of this period might distort the overall picture of the railroads between 1900 and 1937.\textsuperscript{191}

The federal government also factors in my decision to exclude data from 1916 from the sample. From the early days of the 1800s, most railroads operated on a fiscal year that ran from June of each year. Nevertheless, a few notable railroads, like the New York Central, operated on a calendar year. Starting in 1916, the Interstate Commerce Commission ordered all roads to adopt the calendar year as their fiscal year.

Thus, in this sample, data for years before 1917 typically correspond to the calendar year that begins in June of the stated year and extends until the end of May the next calendar year. No data were coded for 1916, as \textit{Mundy}'s reports most railroads statistics for 1915–16, which I code as 1915 data, and then reports statistics for 1917. The few railroads that have reported data for 1916 (those who were already on a calendar year cycle) would again tend to distort the overall picture of the 53 railroads in the sample.

Even after omitting these years, several railroads were missing data for specific years or for specific financial measures. This problem was most acute in the pre-World War I years, especially for railroads that were in receivership. Arguably, these missing figures could bias the study in opposite directions. By excluding data from some of the leanest years for the Receivership Group, the pre-war picture of these railroads might seem better than it actually was (in a relative sense). But since I rely on average figures for most of the regressions, the omission of some years from the Receivership Group could tend to overweight the remaining years, presenting a very stark picture if those remaining years were the ones leading up to the primary receivership. In the end, the reader should just keep in mind that the pre-war numbers in the sample are somewhat less reliable than the figures from the 1920s and 30s.

Additionally, about half of the fixed charge figures in the sample were estimated using one of two approaches.\textsuperscript{192} First, each volume of \textit{Mundy}'s reports the dollar figures for net income and operating reve-


\textsuperscript{192} The following table illustrates the differences in the two estimation approaches as applied to the Baltimore & Ohio's 1928 financial information:

\begin{tabular}{|l|c|c|c|}
\hline
 & Actual & Estimate: First Approach (Algebraic) & Estimate: Second Approach (Operating vs. Total Income) \\
\hline
Fixed Charges & $42,924,155.00 & $43,404,778.44 & $41,680,087.86 \\
Error & n/a & $480,625.44 & ($1,244,067.14) \\
\hline
\end{tabular}
nues, as well as a variety of percentages (such as net income as a percentage of total income and fixed charges as a percentage of total income) for each railroad in each of the several preceding years. Thus, for the years for which I was unable to obtain a Mundy's volume, a subsequent year's volume was used to obtain the actual dollar amounts for operating revenues and net income, and fixed charges were calculated from other figures. Use of this method inevitably introduces slight errors—primarily as a result of rounding the percentage figures in Mundy's—but tests on years in which complete data were available suggest that these errors are typically less than one percent of the total dollar amount involved.

In years in which a railroad had a net operating loss, Mundy's does not report net income as a percentage of total income, instead it simply reports an unspecified "deficit." For these years, it was necessary to estimate fixed charges by multiplying Mundy's figures for fixed charges as a percentage of total revenues against the railroad's operating revenues. For those railroads with substantial income from non-operational sources, this approach likely introduced more significant errors, perhaps as high as five percent of the total dollar amount involved. For a more typical railroad, with operations as its primary source of income, the errors are modest—comparable to those seen from the algebraic method discussed above. The need to use this second method of estimation was most acute for the 1930s, because volumes of Mundy's are hard to obtain and many railroads operated at a loss.

Finally, railroad bankruptcies or receiverships that commenced after 1937, or concluded before 1890, are not considered. For example, both the Pennsylvania and New York Central Railroads are considered to have had no bankruptcies or other reorganizations, despite their spectacular failure as the combined Penn Central Railroad in 1970.

On the other hand, a bankruptcy or receivership that was ongoing at any point between January 1, 1890 and January 1, 1938 is included in this sample. For example, the International and Great Northern's receivership that lasted from 1889 until 1892, as well as its section 77 bankruptcy proceeding that stretched from 1933 until

---

193 See, e.g., supra note 192.

1956, are each counted in this study, even though both proceedings extend beyond the start or finish of the sample.

In some cases, these limitations on what "counts" as a bankruptcy or receivership have seemingly odd results. The Erie Railroad went through at least four receiverships or bankruptcies between its formation and 1950, but only one of those fell between 1890 and 1937—and one of those not included was commenced on January 1, 1938. But the ever-changing nature of the railroad industry, particularly after 1950, would make any attempt to count all failures extremely problematic, muddying the results with the changing fortunes of railroads in the larger economy. For example, practically every Northeastern railroad in the sample was in bankruptcy in the 1970s, while these same railroads were among the strongest between 1900 and 1945. In short, drawing lines around certain dates is inevitably arbitrary, but also inevitably necessary in order to complete the study.

C. Descriptive Statistics

Table 5 presents some basic descriptive statistics with respect to the overall sample. This table provides further evidence that the years between the wars were unkind to the nation's railroads. Several factors are at work here: the pervasive government regulation of railroads following the passage of the Transportation Act of 1920, the failure of the railroads to adapt to a changing economic environment where railroads were no longer the sole competitor for investor dollars, and the increasing influence of the automobile—and, to a lesser extent, the airplane—which threatened railroad dominance of the transportation network.

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196 See supra note 194 and accompanying text.
197 Ch. 91, 41 Stat. 456 (1920). The Transportation Act of 1920 granted the Interstate Commerce Commission the power to set minimum rates, to adjust the rates of one carrier for the purpose of protecting the profits of another, and to require any railroad earning more than six percent on investment to relinquish one-half of that "excess" to the commission for redistribution to less profitable carriers. See Aitchison, supra note 49, at 357–64.
198 See supra Part I.
### Table 5: Characteristics of Sample Railroads

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Max.</th>
<th>Min.</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Miles of Track</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>2,612.02</td>
<td>1,673.00</td>
<td>8,655.00</td>
<td>146.00</td>
<td>2,246.33</td>
<td>50</td>
</tr>
<tr>
<td>1910</td>
<td>3,287.33</td>
<td>2,229.00</td>
<td>10,350.00</td>
<td>457.00</td>
<td>2,783.07</td>
<td>51</td>
</tr>
<tr>
<td>1921</td>
<td>3,669.29</td>
<td>2,241.50</td>
<td>11,678.00</td>
<td>512.00</td>
<td>3,170.52</td>
<td>52</td>
</tr>
<tr>
<td>1930</td>
<td>4,031.96</td>
<td>2,240.00</td>
<td>13,832.00</td>
<td>512.00</td>
<td>3,703.92</td>
<td>53</td>
</tr>
<tr>
<td>1940</td>
<td>3,913.75</td>
<td>2,113.00</td>
<td>13,413.00</td>
<td>507.00</td>
<td>3,603.57</td>
<td>53</td>
</tr>
<tr>
<td><strong>Operating Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>23,710,308.52</td>
<td>15,594,262.50</td>
<td>88,539,827.00</td>
<td>2,324,274.00</td>
<td>20,101,425.69</td>
<td>48</td>
</tr>
<tr>
<td>1917</td>
<td>35,311,956.93</td>
<td>25,419,466.87</td>
<td>149,601,287.46</td>
<td>2,336,072.82</td>
<td>32,955,121.45</td>
<td>53</td>
</tr>
<tr>
<td>1921</td>
<td>35,452,756.64</td>
<td>25,861,169.25</td>
<td>205,250,910.50</td>
<td>1,313,816.53</td>
<td>36,599,188.96</td>
<td>53</td>
</tr>
<tr>
<td>1929</td>
<td>44,682,907.07</td>
<td>31,239,235.69</td>
<td>297,355,054.39</td>
<td>2,055,688.07</td>
<td>50,588,735.29</td>
<td>53</td>
</tr>
<tr>
<td>1937</td>
<td>36,631,183.60</td>
<td>23,944,533.16</td>
<td>236,640,611.50</td>
<td>1,896,228.62</td>
<td>43,841,858.30</td>
<td>53</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>4,078,250.13</td>
<td>2,398,124.00</td>
<td>16,771,499.00</td>
<td>146,950.00</td>
<td>4,239,912.43</td>
<td>47</td>
</tr>
<tr>
<td>1917</td>
<td>5,730,858.01</td>
<td>2,271,615.37</td>
<td>28,812,275.42</td>
<td>(244,777.64)</td>
<td>7,131,244.83</td>
<td>53</td>
</tr>
<tr>
<td>1921</td>
<td>1,849,103.00</td>
<td>831,641.22</td>
<td>13,765,031.66</td>
<td>(6,289,409.23)</td>
<td>3,954,355.55</td>
<td>53</td>
</tr>
<tr>
<td>1929</td>
<td>6,605,886.80</td>
<td>3,401,128.33</td>
<td>44,155,976.73</td>
<td>(98,431.20)</td>
<td>8,890,690.28</td>
<td>53</td>
</tr>
<tr>
<td>1937</td>
<td>896,000.87</td>
<td>(160,598.08)</td>
<td>17,938,752.46</td>
<td>(7,687,321.11)</td>
<td>4,643,940.75</td>
<td>53</td>
</tr>
<tr>
<td><strong>Book Value of Common Equity (in millions of dollars)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>68.55</td>
<td>45.47</td>
<td>251.00</td>
<td>8.75</td>
<td>64.92</td>
<td>34</td>
</tr>
<tr>
<td>1929</td>
<td>80.85</td>
<td>50.88</td>
<td>328.68</td>
<td>9.82</td>
<td>81.18</td>
<td>36</td>
</tr>
<tr>
<td>1933</td>
<td>109.40</td>
<td>58.75</td>
<td>502.89</td>
<td>11.45</td>
<td>119.15</td>
<td>36</td>
</tr>
<tr>
<td>1937</td>
<td>84.50</td>
<td>33.84</td>
<td>436.63</td>
<td>(3.11)</td>
<td>105.87</td>
<td>36</td>
</tr>
</tbody>
</table>

**Notes:**
- All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.
- Reflects the Norfolk & Southern R.R., a Receivership Group railroad. Merged with the Virginia & Carolina Coast R.R. in 1906 and thus had more than 500 miles of track by the time covered in Daggett (1918).
- Wheeling & Lake Erie R.R., which Daggett reported as having 504 miles of track when it was taken over by a receiver in 1908. Mundy's reports only 442 miles for this railroad as of June, 1908, although Mundy's lists the railroad at 512 miles after WWI.

On a more positive note, the tremendous size of these railroads bears noting. The average operating income of over $26 million in 1900 translates to more than $645 million in 2002. The Pennsylvania Railroad, the largest of the railroads in terms of operating income in the 1900 sample, earned more than $2 billion in today's dollars.

But as the standard deviation numbers show, there is a great deal of variation in the sample. Accordingly, Table 6 shows some of the same descriptive statistics, broken down by the two groups in the sample, to permit comparison.
### Table 6: Characteristics of Sample Railroads by Group

<table>
<thead>
<tr>
<th></th>
<th>Receivership Group (1890–1917 Receiverships)</th>
<th>Control Group (No Pre-WWI Receiverships)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Miles of Track</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>2,739.95</td>
<td>2,206.50</td>
</tr>
<tr>
<td>1910</td>
<td>3,398.70</td>
<td>2,265.00</td>
</tr>
<tr>
<td>1921</td>
<td>3,612.42</td>
<td>2,380.50</td>
</tr>
<tr>
<td>1930</td>
<td>3,706.00</td>
<td>2,206.50</td>
</tr>
<tr>
<td>1940</td>
<td>3,652.96</td>
<td>2,113.00</td>
</tr>
<tr>
<td>Operating Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>22,650,286.80</td>
<td>21,459,580.00</td>
</tr>
<tr>
<td>1910</td>
<td>30,521,373.58</td>
<td>23,782,060.86</td>
</tr>
<tr>
<td>1917</td>
<td>30,713,704.64</td>
<td>23,735,074.69</td>
</tr>
<tr>
<td>1921</td>
<td>29,944,911.63</td>
<td>24,300,461.16</td>
</tr>
<tr>
<td>1929</td>
<td>36,510,782.96</td>
<td>25,328,386.60</td>
</tr>
<tr>
<td>1937</td>
<td>28,703,597.42</td>
<td>22,209,509.36</td>
</tr>
<tr>
<td>Net Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>3,685,941.95</td>
<td>1,801,220.50</td>
</tr>
<tr>
<td>1910</td>
<td>4,278,723.46</td>
<td>1,221,892.19</td>
</tr>
<tr>
<td>1917</td>
<td>4,615,606.27</td>
<td>1,157,192.83</td>
</tr>
<tr>
<td>1921</td>
<td>1,822,972.81</td>
<td>829,140.09</td>
</tr>
<tr>
<td>1929</td>
<td>5,066,731.61</td>
<td>3,248,573.69</td>
</tr>
<tr>
<td>1937</td>
<td>(24,765.25)</td>
<td>(231,555.47)</td>
</tr>
<tr>
<td>Book Value of Common Equity (in millions of dollars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>62.32</td>
<td>36.42</td>
</tr>
<tr>
<td>1929</td>
<td>70.93</td>
<td>38.08</td>
</tr>
<tr>
<td>1933</td>
<td>91.64</td>
<td>40.74</td>
</tr>
<tr>
<td>1937</td>
<td>69.66</td>
<td>26.33</td>
</tr>
</tbody>
</table>

All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.

If size is measured by track miles operated, Table 6 shows that the two subgroups are roughly comparable. On the other hand, the financial numbers show a mixed picture. By 1921, the two groups are comparable in terms of net income, but by other measures the Control Group is somewhat larger. By 1937, however, the Control Group has clearly passed the Receivership Group by all measures.

The Control Group’s average operating income, while down from the highs of the late 1920s, is still above its 1921 levels. Furthermore, the Control Group’s average net income in 1937 fell below 1921 levels, but only slightly. And the Control Group is still well in the black in terms of average book value of equity.

Conversely, the Receivership Group fell to an average net loss of slightly more than $24,500 and its average operating income in 1937 also dipped below 1921 levels. The significant difference between the mean and median book value figures also suggests that the average is hiding a good deal of distress. Indeed, the average (median) change

---

199 For example, the 1921 mean operating income figures show that some railroads in the Control Group are much larger than those found in the Receivership Group.
between 1926 and 1937 book values for the Receivership Group was $14.26 million ($4.94 million), while the corresponding numbers for the Control Group were $30.36 million and $11.41 million, respectively.

D. The Effectiveness of Receiverships—A First Look

Contemporary literature often noted that receiverships substantially reduced a railroad's fixed charges, which was thought to vitally improve its health. As shown in Table 7, the data generally bear out this intuitive sense, showing that fixed charges were reduced, on average, by more than 25% in the 19 primary receiverships for which data are available.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.39%</td>
<td>31.16%</td>
<td>-52.44%</td>
<td>19</td>
</tr>
</tbody>
</table>

As shown in Table 8, however, fixed charges continued to consume a very large part of the reorganized railroads' gross income (total income less operating and maintenance expenses), leaving little margin for increased maintenance or even slight downturns in operating income.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.96%</td>
<td>71.24%</td>
<td>15.28%</td>
<td>19</td>
</tr>
</tbody>
</table>

This is one initial indication that receiverships were not designed to provide railroads with optimal capital structures, but rather with typical capital structures such as those that might be found in a non-bankrupt railroad.

This suggestion is further borne out in light of Table 9, which shows that during the inter-war years, the Receivership Group's average fixed charges as a percentage of total income were virtually indistinguishable from those of the Control Group—despite the reduction worked by the primary receiverships.

---


201 The odd standard deviation results from one railroad that actually increased its fixed charges by more than 170% in its receivership as part of a deal to absorb another railroad, resulting in increased fixed charges but to a larger railroad.
TABLE 9: AVERAGE FIXED CHARGES AS PERCENTAGE OF INTER-WAR TOTAL INCOME

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Sample</td>
<td>23.00%</td>
<td>23.00%</td>
<td>5.00%</td>
<td>53</td>
</tr>
<tr>
<td>Receivership Group</td>
<td>23.00%</td>
<td>23.00%</td>
<td>5.00%</td>
<td>25</td>
</tr>
<tr>
<td>(1890–1917 Receiverships)</td>
<td>23.00%</td>
<td>22.00%</td>
<td>5.00%</td>
<td>28</td>
</tr>
</tbody>
</table>

As Table 9 indicates, railroads that went through a receivership were not exploring new capital structures in their receiverships. Instead, they were returning to the norm—which meant relatively high debt levels—even though the norm might have been inappropriate for railroads that suffered under poor operating locations or intense local competition.

Finally, upon further examination, the figures in Table 6 reveal some hints that all was not well with the railroads in the Receivership Group. This is outlined in Table 10, which shows the change in the railroads' financial health, as measured by operating and net income, for the years between the wars.

TABLE 10: CHANGE IN RAILROADS’ INTER-WAR FINANCIAL CONDITION

<table>
<thead>
<tr>
<th></th>
<th>Receivership Group (1890–1917 Receiverships)</th>
<th>Control Group (No Pre-WWI Receiverships)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Change in Operating Income</td>
<td>1,241,314.21</td>
<td>(355,928.00)</td>
</tr>
<tr>
<td>Change in Net Income</td>
<td>1,847,788.06</td>
<td>(1,330,568.83)</td>
</tr>
</tbody>
</table>

Notes:
All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.
“Change” is the difference between the indicated figure in 1937 and 1921.

To be sure, some railroads in the Receivership Group experienced substantial success after their receivership. This is best illustrated by a variable which captures the 1935 share price as a percentage of the 1921 share price—in both cases as standardized to remove the effects of inflation and deflation. Three of the twelve railroads in the Receivership Group for which these data were available saw real growth in their share prices during this period, as compared to only one railroad out of the nineteen in the Control Group. But two of these three successful railroads in the Receivership Group had already been through multiple receiverships before World War 1, and

202 This variable was named ShrPrChg(IntW/Real).
the other, the Union Pacific, was arguably anomalous, as its trip into receivership in the 1890s was rather plainly the result of management's infamous self-dealing as opposed to real operational or financial problems.203

E. The Effectiveness of Receiverships—Regression Analyses

To further examine the effectiveness of railroad receiverships, I next turn to some basic regression models. To facilitate this analysis, I created a new variable,204 which is coded "1" if a railroad went through a bankruptcy or receivership between 1921 and the end of 1937,205 and is otherwise coded "0."

By using this variable, both Groups start from a position of equality, and their inter-War performance is measured without regard to their prior financial condition. If receiverships effectively resolved a railroad's financial problems, we would expect that the Receivership Group railroads would encounter financial distress as often (or even less often) than the railroads in the Control Group.

The remaining variables (more than 45) were regressed against this new variable to determine if they showed signs of explaining a railroad's tendency to undergo multiple bankruptcies, including the basic variable that indicates whether or not a railroad was in the Control or Receivership Groups. Because of the problems associated with performing ordinary least squares (OLS) regressions with a binary dependent variable,206 I used a logistic regression model to estimate the factors which influence the new variable.207 Table 11 shows the more interesting results of this analysis.208

203 See Daggett (1908), supra note 22, at 223–24.
204 This variable was named MultiBankr1921.
205 Remember that, starting in the 1930s, railroads had the choice of either reorganizing under a traditional receivership or by way of a bankruptcy proceeding under section 77 of the Bankruptcy Act. See Guar. Trust Co. of N.Y. v. Seaboard Air Line Ry. Co., 53 F. Supp. 672, 697 (E.D. Va. 1943) ("Before the passage of the Act of Congress (in 1933) providing for railroad reorganization as a part of the bankruptcy law (sec. 77) the only juridical mode of railroad reorganization was in equity. Since then it may be thought that equity for such a purpose is outmoded but not outlawed."). But see New Eng. Coal & Coke Co. v. Rutland R.R. Co., 143 F.2d 179, 185 (2d Cir. 1944) ("In place of the shoddy, leaky, chancellor's umbrella supplied at the instance of an unsecured creditor and upon the debtor's consent, Congress had supplied the well-built shelter of the Bankruptcy Act. Consequently the receiver here was 'irregularly appointed.' . . . [O]nce the judge's attention was directed, in any way, to that irregularity, he should have taken steps to correct it.").
207 Logistic regression predicts the probability that the dependent variable event will occur (i.e., a response of "1") given the independent variables. In standard logistic regression, the predicted values of the dependent variable can range from 0 to 1. The coefficients for the predictor variables measure the change in the probability of the occurrence of the dependent variable event in log units. See id.
208 The output from each run performed in connection with Table 6 is available from the author upon request. The table shows all regressions with results that were statistically
### Table 11: Bivariate Logistic Regression Analysis

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coef</th>
<th>StdErr</th>
<th>p-value</th>
<th>LRχ² [df=1]</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Group (Receivership = 1; Control = 0)</td>
<td>1.0186</td>
<td>0.5922</td>
<td>&lt;.10</td>
<td>3.0616</td>
<td>&lt;.10</td>
</tr>
<tr>
<td>2 Morgan Control (Yes = 1)</td>
<td>-0.5842</td>
<td>0.6716</td>
<td>n.s.</td>
<td>0.7900</td>
<td>n.s.</td>
</tr>
<tr>
<td>3 Fixed Charges Change (1937 less 1921)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>&lt;.10</td>
<td>5.1211</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>4 Standardized Fixed Charges Change (1937 less 1921)</td>
<td>-0.0008</td>
<td>0.0005</td>
<td>&lt;.10</td>
<td>3.4993</td>
<td>&lt;.10</td>
</tr>
<tr>
<td>5 Average Op. Income (1900 to 1937)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>&lt;.10</td>
<td>4.9698</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>6 Average Net Income (1900 to 1937)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>p&lt;.01</td>
<td>16.2551</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>7 Average of Net Income as % Op. Income (1900 to 1937)</td>
<td>32.8346</td>
<td>11.0216</td>
<td>p&lt;.01</td>
<td>12.4959</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>8 Average of Fixed Charges as % Op. Income (1900 to 1937)</td>
<td>14.1099</td>
<td>4.8701</td>
<td>p&lt;.01</td>
<td>11.3660</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>9 Average Standardized Op. Income (1900 to 1937)</td>
<td>-0.0001</td>
<td>0.0001</td>
<td>p&lt;.05</td>
<td>6.1320</td>
<td>p&lt;.05</td>
</tr>
<tr>
<td>10 Average Standardized Net Income (1900 to 1937)</td>
<td>-0.0039</td>
<td>0.0012</td>
<td>p&lt;.01</td>
<td>26.5959</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>11 Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1937)</td>
<td>12.8547</td>
<td>4.6073</td>
<td>p&lt;.01</td>
<td>10.0390</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>12 Average Op. Income (1900 to 1917)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>&lt;.10</td>
<td>4.1808</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>13 Average Net Income (1900 to 1917)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>&lt;.05</td>
<td>8.8050</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>14 Average of Fixed Charges as % Total Income (1900 to 1917)</td>
<td>19.4218</td>
<td>7.8304</td>
<td>&lt;.05</td>
<td>7.7041</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>15 Average of Net Income as % Op. Income (1900 to 1917)</td>
<td>-11.3380</td>
<td>4.1139</td>
<td>&lt;.01</td>
<td>10.3694</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>16 Average of Fixed Charges as % Op. Income (1900 to 1917)</td>
<td>14.2720</td>
<td>6.6550</td>
<td>&lt;.05</td>
<td>5.3938</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>17 Average Standardized Op. Income (1900 to 1917)</td>
<td>-0.0001</td>
<td>0.0001</td>
<td>&lt;.10</td>
<td>4.4258</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>18 Average Standardized Net Income (1900 to 1917)</td>
<td>0.0011</td>
<td>0.0005</td>
<td>&lt;.05</td>
<td>10.7201</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>19 Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1917)</td>
<td>17.3547</td>
<td>7.0515</td>
<td>&lt;.05</td>
<td>7.4989</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>20 Average Op. Income (1921 to 1937)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>&lt;.10</td>
<td>5.4271</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>21 Average Net Income (1921 to 1937)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>p&lt;.01</td>
<td>35.8654</td>
<td>p&lt;.01</td>
</tr>
<tr>
<td>22 Average of Fixed Charges as % Total Income (1921 to 1937)</td>
<td>19.7462</td>
<td>7.9615</td>
<td>&lt;.05</td>
<td>8.0478</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>23 Average of Net Income as % Op. Income (1921 to 1937)</td>
<td>-39.7486</td>
<td>11.0729</td>
<td>&lt;.01</td>
<td>32.0177</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>24 Average of Fixed Charges as % Op. Income (1921 to 1937)</td>
<td>7.0110</td>
<td>2.6806</td>
<td>&lt;.01</td>
<td>9.0217</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>25 Average Standardized Op. Income (1921 to 1937)</td>
<td>-0.0001</td>
<td>0.0001</td>
<td>&lt;.05</td>
<td>7.2023</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>26 Average Standardized Net Income (1921 to 1937)</td>
<td>-0.0063</td>
<td>0.0017</td>
<td>&lt;.01</td>
<td>40.3128</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>27 Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1917)</td>
<td>5.7649</td>
<td>2.4981</td>
<td>&lt;.05</td>
<td>6.6207</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Notes:
- Dependent variable is MultiBankr1921, which is described in the text. 34 cases (64.15%) have Y=0; 19 cases have Y=1.
- Standardized variables were created by dividing the indicated financial figure by each railroad's 1940 track mileage.
- n=53
From regression 1 we see that the probability of undergoing a receivership or bankruptcy for a particular railroad is related \((LR_X^2 p = 0.0802)\) to whether or not a railroad went through a prior receivership. Specifically, from the coefficient we can calculate that a pre-World War I receivership (membership in the Receivership Group) increased the odds of a receivership or bankruptcy in the inter-War period by a factor of 2.7692.\(^{209}\) This means that railroads in the Receivership Group were more than two-and-a-half times more likely than railroads in the Control Group to undergo one or more receiverships or bankruptcies in the inter-War years.\(^{210}\)

In short, a railroad was more likely to undergo an additional bankruptcy or receivership if it had already gone through a receivership. This result throws into question the efficacy of the receiverships that occurred between 1890 and the United States’s entry into World War I.

To be sure, relationship does not prove causation, and we cannot conclude that having gone through one receivership causes a railroad to go through more. The frequent need for reorganization of the Receivership Group railroads may reflect the poor economic conditions of the regions where those railroads were located or, conversely, the strong economic conditions and resulting competition among railroads.\(^{211}\)

Nevertheless, the data do suggest that receiverships were not effective at addressing a railroad's financial problems on the first try. Given the apparently significant direct costs associated with a receivership\(^{212}\)—and the presumably large indirect costs associated with the extended duration of these proceedings\(^{213}\)—it is unlikely that repeated receiverships would be socially optimal.

Additionally, the refiling rate\(^{214}\) for the Receivership Group railroads is an astounding 12 out of 25, or almost 50%. Large, present-

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significant \((p < .10)\). Word Perfect file: Regression Output File—Bivariate (Multibankr 1921 is Dep.) (on file with author).

\(^{209}\) \(\exp(\text{slope}) = e^{1.0186} = 2.7692.\)

\(^{210}\) On average, the railroads in the Receivership Group that had multiple receiverships went into their next receivership about sixteen and a half years after the end of their first receivership. The implications of this data are unclear. On the one hand, it may suggest that the causes of the first receivership were unrelated to the causes of the second. On the other hand, given the extremely favorable prevailing economic conditions in the 1920s, it is not entirely surprising that the railroads in the Receivership Group, most of which completed their initial receiverships during World War I, would avoid another receivership until the start of the Great Depression.

\(^{211}\) See supra Part II.B.

\(^{212}\) See supra notes 163–67 and accompanying text.

\(^{213}\) See Tables 3 and 4, supra p. 1451.

\(^{214}\) For example, railroads with a positive response in MultiBankr1921.
day chapter 11 cases have a refiling rate of 17%,\textsuperscript{215} and only 7 out of 28 railroads in the Control Group (25%) sought protection from creditors during the inter-War period. Thus, the average railroad that reorganized under a receivership subsequently failed at a rate more than twice as high as railroads that had never gone through a receivership, and almost three times as high as modern chapter 11 debtors.

Many of the other significant results in Table 11 are self-evident. For example, measures of a railroad’s inter-War profitability (regressions 23, 25 and 26) or profitability over the full term of the sample (regressions 5, 6, and 10) are strongly predictive of whether a railroad will undergo a receivership or bankruptcy in the inter-War period. But regressions 13, 15 and 18 are troublesome, inasmuch as they suggest that a railroad’s profitability before World War I is predictive of whether it will experience financial distress after World War I. In a sample where almost half of the railroads went through one or more receiverships before the War, pre-War profitability arguably should have little bearing on post-War bankruptcies. This observation may also indicate that receiverships were not effectively addressing the railroads’ financial problems.

Table 11 reveals that fixed charge figures, particularly those that relate to the size of the railroad, are also good predictors of a railroad’s future need for bankruptcy or receivership.\textsuperscript{216} Again, this has a good deal of intuitive appeal—the greater the fixed burden on a railroad, the more significant even a small economic downturn becomes. But the fixed charge regressions for the pre-War period, such as regressions 14 and 16, again show some ability to predict post-War financial distress, whereas the prior receiverships in the sample would suggest that pre-War measures should be of little import.

Interestingly, J.P. Morgan & Co.’s earlier involvement with a railroad has a negligible effect on the probability of multiple bankruptcies or receiverships. While Morgan’s involvement may have been optimal in good times—at least for investors, although some of these gains were apparently simple wealth transfers resulting from monopolization\textsuperscript{217}—it appears that the firm’s involvement did little to forestall a railroad’s future financial distress. Perhaps the benefits of Morgan’s

\textsuperscript{215} Lynn M. LoPucki & Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Empirical Evidence of a “Race to the Bottom,”* 54 Vand. L. Rev. 231, 249 tbl.4 (2001) (reporting that the refiling rate is 10% when Delaware and New York are excluded from the sample).

\textsuperscript{216} For example, regressions 3, 8, 14, 16, 22, and 24.

\textsuperscript{217} See Miguel Cantillo Simon, *The Rise and Fall of Bank Control in the United States: 1890–1939,* 88 Am. Econ. Rev. 1077, 1087 (1998) (finding that a large part of the gains to investors that came from Morgan’s involvement represented gains from cartels that Morgan coordinated).
involvement with a railroad were unlikely to last once the passage of the Clayton Antitrust Act in 1914 minimized Morgan’s influence.218

IV IMPLICATIONS FOR MODERN BANKRUPTCY THEORY

The foregoing analysis plainly cautions against an unconsidered embrace of railroad receiverships as a font of ideas for the improvement of corporate or sovereign reorganization. Admittedly, it does not show that receiverships caused yet more receiverships. The railroads that initially went through receiverships may have been weak, with little chance for success. Other functional problems may have plagued them. But the data do suggest that receiverships were ineffective at addressing a railroad’s financial problems, whatever they may have been.

Modern scholarship tends to equate receiverships with chapter 11 or its New Deal statutory predecessors, and then question why the New Dealers felt the need to provide a statutory alternative to an existing consensual means of dealing with corporate distress. As the data presented herein remind us, receiverships were only viable if the debtor and its creditors could agree on a plan that would result in a sale of the railroad.219 Financially troubled railroads were almost entirely dependent on creditor goodwill to make the receivership process work. If too many bondholders opted to take the upset price and exit the railroad, the process would fail.220 And there was no way to compel bondholder participation.221

Thus, the debtor railroad was limited to proposing a plan that reflected the management’s (presumed) desire to revamp the railroad’s financial structure while also providing for the smallest possible abrogation of the bondholders’ claims.222 Such a tradeoff was bound

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218 See CAROSSO, supra note 40, at 179–80; see also HENRY R. SEAGER & CHARLES A. GULICK, JR., TRUST AND CORPORATION PROBLEMS 420–21 (1929) (noting that one of the Clayton Act’s “most important limitation[s] affecting industrial combinations was that, beginning two years from the date of the approval of the act, no person could at the same time be a director in any two or more industrial corporations” of a certain size).

219 In this way, railroad receiverships were not a true example of contractualism in place of formal bankruptcy, since the bargaining took place ex post, rather than ex ante as most modern day scholars advocate. See, e.g., Alan Schwartz, A Contract Theory Approach to Business Bankruptcy, 107 YALE L.J. 1807, 1849–50 (1998). Recent reviews of the contractualist literature include, for example, Susan Block-Lieb, The Logic and Limits of Contract Bankruptcy, 2001 U. ILL. L. REV. 503, and Stephen J. Lubben, Some Realism About Reorganization: Explaining the Failure of Chapter 11 Theory, 106 DICK. L. REV. 267 (2001) [hereinafter Lubben, Some Realism].

220 See supra notes 153–55 and accompanying text.

221 See supra notes 106–17 and accompanying text.

222 See W.Z. Ripley, Railroad Over-Capitalization, 28 Q.J. ECON. 601, 625 (1914) (noting that the need to gain bondholders’ consent to a plan often resulted in the overly generous distribution of new securities).
to produce less "reorganization" than might be objectively optimal. It might be tempting to point to the railroads' inability to liquidate as the reason for the repeated need for reorganization. This was undoubtedly true in some, probably small, subset of cases. Some railroads simply offered service on routes that were already well-served by other, more efficient carriers.\textsuperscript{223}

Recall, however, that receiverships did not seek to give railroads optimal capital structures, but rather typical capital structures. Essentially, receiverships were about returning wayward railroads to the financial mean.\textsuperscript{224} Somewhere between the typical capital structure and complete liquidation, many railroads might have found a workable solution to their financial distress. For example, railroads in underdeveloped areas of the country probably should have been capitalized with something close to an "equity only" structure, an option none seem to have taken in receivership.\textsuperscript{225} Again, the need to reach consensus with the railroad's bondholders probably precluded this sort of restructuring, especially since "it was not uncommon that the men who owned largely of the mortgage bonds also held largely of the shares."\textsuperscript{226}

Even beyond the data presented herein, the tendency to equate receiverships with chapter 11 lends itself to a stylized version of history that accentuates the triumphs of investment bankers and corporate lawyers negotiating a private solution among sophisticated bondholders. At the same time, blame is often placed squarely on hapless and misinformed New Dealers, in particular William O. Douglas and Jerome Frank.\textsuperscript{227}

But the Realists were not misled into believing that receiverships were nothing more than traditional mortgage foreclosures. They

\textsuperscript{223} A prime example was the routes into New York City, which were serviced by the large railroads with terminals in Manhattan, the New York Central and the Pennsylvania, railroads that entered the city as a result of agreements with these two railroads (e.g., the New York, New Haven & Hartford), as well as several other lesser railroads with terminals across the river in Hoboken or Jersey City (e.g., the Delaware, Lackawanna and Western).

\textsuperscript{224} See Table 9 and text, supra p. 1463.

\textsuperscript{225} Indeed, before the advent of a corporate income tax, there was even less reason to favor debt over equity than there is today. See generally Katherine Pratt, The Debt-Equity Distinction in a Second-Best World, 53 Vand. L. Rev. 1055, 1094–1157 (2000) (analyzing the distinction between debt and equity financing).

\textsuperscript{226} De Forest Billyou, Priority Rights of Security Holders in Bankruptcy Reorganization: New Directions, 67 Harv. L. Rev. 553, 556 (1954) (quoting Adrian H. Joline, a leading reorganization lawyer, in a speech from 1900). Two decades ago Mark Roe made a similar argument with respect to chapter 11, asserting that the desire to terminate a chapter 11 case would lead senior creditors to agree to suboptimal capital structures. Mark J. Roe, Bankruptcy and Debt: A New Model for Corporate Reorganization, 83 Colum. L. Rev. 527, 543–44 (1983); see also Lubben, Some Realism, supra note 219, at 271–303 (critiquing several scholarly attacks on Chapter 11).

\textsuperscript{227} See supra note 11.
readily understood that the form of a foreclosure sale was being used to achieve something more, but they believed that too often the result achieved was inequitable and the product of self-dealing. For this reason, many of the Realists would ultimately lead the charge against receivership when they gained power in the New Deal era.

Similarly, while the critics use of Douglas and Frank as foils is deft, the focus on the New Deal misses the significant degree of dissatisfaction with railroad receiverships that existed long before Douglas even received his law degree. Also missing is any mention of the use of receiverships to alter labor agreements, prevent strikes, and punish labor leaders. Likewise, many fail to mention the use of railroad receiverships in federal courts to place railroads outside the regulatory control of state governments, avoid certain federal

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228 See, e.g., Thurman W. Arnold, The Folklore of Capitalism 235–39 (1937) (comparing a receivership to "a Chinese play, in that it was endless, and very highly stylized," but acknowledging that "[b]ehind the scenes a different game went on . . . in which different conflicting interests traded and negotiated for strategic position within the enterprise, much as rival military cliques might struggle for the control of an army"). As Victor Brudney has noted, the Supreme Court was the one party that routinely and rigidly adhered to the foreclosure conception of reorganization. See Victor Brudney, The Investment-Value Doctrine and Corporate Readjustments, 72 Harv. L. Rev. 645, 676 n.94 (1959).

229 See, e.g., Max Lowenthal, The Investor Pays 217–30 (1933); see also Palmer, supra note 114, at 1 ("Railroad reorganization was a racket many years before the word racket was coined; and thousands of investors have paid tribute to it with the loss of their fortunes.").

230 See Baird & Rasmussen, Control Rights, supra note 1, at n.10.

231 See, e.g., Taylor v. Phila. & Reading R.R. Co., 9 F. 1, 3 (C.C.E.D. Pa. 1881) ("The modern practice, prevailing to some extent, of transferring corporate property to the custody of the courts, to be thus held and managed for an indefinite period of years, to suit the convenience of parties, (whereby general creditors are kept at bay), I regard as a mischievous innovation."); see James N. Rosenberg, A New Scheme of Reorganization, 17 Colum. L. Rev. 523, 528 (1917) ("Judge Hough [of the Southern District and later the Second Circuit] . . . speaks [justifiedly] of the frequent 'tranny and extravagance' of reorganization committees."); Thomas A. Thacher, Some Tendencies of Modern Receiverships, 4 Cal. L. Rev. 32, 47 (1915) ("Since the committee formed will in all probability be the only bidder, the property will be sold for a fraction of its value, and the bondholder staying out of the reorganization scheme will receive little. The small bondholder, therefore, has practically no choice."); see also James W. Ely, Jr., Railroads and American Law 179–80 (2001) ("By the start of the twentieth century, railroad receiverships were the subject of frequent complaint."); Chamberlain, supra note 106 (criticizing the role of the courts in implementing receiverships).


RAILROAD RECEIVERSHIPS

regulations, and thwart the collection of state taxes.

Any attempt to ascribe to Douglas and his compatriots all the credit or blame for bringing an end to receiverships also fails to consider the larger trends at work during the New Deal. Federal equity jurisdiction was under attack across the board—consider the enactment of the Norris-LaGuardia Act in 1932, the Johnson Act in 1934, and the Tax Injunction Act in 1937. The attack on receiverships was just one facet of a larger trend aimed at counteracting the use of federal equity jurisdiction in service of big business.

Furthermore, as one historian has noted, the role played by the well known New York and Boston investment bankers was “decidedly uneven.”

There were many examples where responsible reorganization and consolidation resulted in financial and physical rehabilitation . . . . On the other hand, the injection of banker control was often accompanied by unscrupulous financial manipulation which shattered the financial structure of the [rail]roads and impaired their physical property . . . . It is interesting to note that the same bankers who did a good job on one railroad were not above ruining another.

Generalizations about the roles of such complex actors are bound to fall short. Nonetheless, the concerns that Douglas and others expressed about the numerous conflicts of interest that followed receivership professionals—for example, many investment banking firms and their principles were holders of railroad securities while also ad-

1920); see Seymour D. Thompson, The Court Management of Railroads, 27 Am. L. Rev. 481, 481-97 (1893).

234 See, e.g., United States v. Harris, 177 U.S. 305, 309-10 (1900) (excluding receivers from federal railroad regulations regarding transport of live animals); see also ROBERT H. JACKSON, THE STRUGGLE FOR JUDICIAL SUPREMACY 119 (1941) (“[I]nventive lawyers had just devised an . . . exclusive method of lynching a Congressional enactment without fair trial. Some lawyer who had in his hands a receivership or a trusteeship in reorganization proceedings would apply to a federal judge for ‘instructions’ as to whether he should obey the law. Of course he did not want to, or he would not ask.”).


240 Faulkner, supra note 58, at 199.
vising both the railroads and the reorganization committees—are worth some reconsideration in light of the data presented in this Article. Too often, modern scholarship seems to allow the authors’ understandable distaste for the often clumsy and overly bureaucratic infrastructure that Douglas built to replace receiverships\(^{241}\) to drive their analysis of the Realist critique of receiverships.\(^{242}\) But the validity of Douglas’s critique of receiverships was not dependent on the vitality of his reform proposals.

In particular, the high failure rates described herein must have been manifest to the professionals involved in railroad receiverships. Yet, they apparently made little effort to develop alternative forms of restructuring until the late 1920s and early 1930s,\(^{243}\) and only then because the Supreme Court had begun to make ominous suggestions that receiverships would only be allowed in railroad cases, and not in cases of general corporate financial distress.\(^{244}\) If these talented professionals had truly been working to advance their clients’ interests, it seems likely that new ideas and approaches would have emerged much earlier, especially once Boyd made the existing receivership infrastructure more cumbersome.\(^{245}\) But, as the Realists noted, these professionals had every reason to maintain the status quo—or, more benignly, simply remain indifferent to the high failure rates of receiverships. After all, receiverships not only generated healthy professional fees but also provided the bankers with an easy means of aggregating railroads within control groups.\(^{246}\)

Similarly, the data presented herein also call for some consideration of whether the consensual nature of receivership might have implications for its modern use. In this Article I have argued that this aspect of receivership most likely led to an “under-reorganization” of railroads, reflecting the parties’ attempts to avoid the hard choices

\(^{241}\) To be sure, some contemporary commentators thought otherwise. See Eugene V. Rostow & Lloyd N. Cutler, *Competing Systems of Corporate Reorganization: Chapters X and XI of the Bankruptcy Act*, 48 *Yale L.J.* 1334, 1334 (1939) (“As a device for protecting the participants in reorganization from each other, Chapter X is in every way an improvement upon its predecessors, the equity receivership and the Section 77B proceeding.”).

\(^{242}\) See Baird & Rasmussen, *Control Rights*, supra note 1, at 934–36; id at 925 n.10 (“[T]hese . . . academics put their theories into practice when they went to Washington during the New Deal. The damage done to the law of corporate reorganizations has taken decades to fix and has still not been set completely right.”).


\(^{244}\) See, e.g., Harkin v. Brundage, 276 U.S. 36, 52 (1928); see also Friendly, *supra* note 139, at 43 (discussing contemporary decisions by the Supreme Court); Skeel, *Evolutionary Theory*, supra note 1, at 1360 (“Starting in the 1920s, the Supreme Court began hinting that railroads were a special case, and that the Court had serious doubts about other firms’ use of the receivership process.”).

\(^{245}\) See supra note 137 and accompanying text.

\(^{246}\) See supra note 94 and accompanying text.
that might have warded off future financial difficulties. Arguably the same argument could be made against the use of receiverships in several modern contexts, such as sovereign debt restructuring. Indeed, it seems likely that all systems that determine the amount of debt reduced by reference to the amount of reduction that creditors are willing to bear will suffer from similar failings.

From these few examples alone, the need to reconsider the utility of railroad receivership and the role they can play in modern approaches to financial distress seems plain.

**Conclusion**

This Article presented data that question the efficacy of railroad receiverships. Because these receiverships form the basis of myriad present-day academic projects, such findings have obvious and serious implications for several ongoing debates. To be sure, the findings presented in this Article do not directly support the argument that the many projects founded on accounts of railroad receivership are defective. Rather, my goal has been to highlight the dubious nature of the foundation, not to declare the enterprise beyond salvation. The merits of each individual project are necessarily a task for other scholarship, each undertaken in light of the findings presented herein.

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247 See supra notes 222-24 and accompanying text.
248 See Buchheit & Gulati, supra note 1, at 1342-51.
## Appendix A

### Railroads Deleted From Sample

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Sample Group</th>
<th>Reason for Removal</th>
<th>Year of Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Vermont Ry.</td>
<td>Control</td>
<td>Grand Trunk Ry. acquired control; Mundy’s separate coverage sporadic throughout study</td>
<td>1896</td>
</tr>
<tr>
<td>Chicago &amp; Alton Ry.</td>
<td>Control</td>
<td>Baltimore &amp; Ohio acquired control; no separate coverage by Mundy’s</td>
<td>1929</td>
</tr>
<tr>
<td>Cincinnati, Hamilton &amp; Dayton Ry.</td>
<td>Receivership</td>
<td>Baltimore &amp; Ohio acquired control; no separate coverage by Mundy’s</td>
<td>1909</td>
</tr>
<tr>
<td>Cleveland, Cincinnati, Chicago &amp; St. Louis Ry.</td>
<td>Control</td>
<td>Leased by New York Central; no separate coverage by Mundy’s</td>
<td>1930</td>
</tr>
<tr>
<td>Duluth, South Shore &amp; Atlantic Ry.</td>
<td>Control</td>
<td>Canadian Pacific acquired control; Mundy’s separate coverage sporadic throughout study</td>
<td>1890</td>
</tr>
<tr>
<td>Grand Rapids &amp; Indiana Ry.</td>
<td>Control</td>
<td>Leased to Pennsylvania Railroad for 999 years; no separate coverage by Mundy’s</td>
<td>1918</td>
</tr>
<tr>
<td>Iowa Central Ry.</td>
<td>Control</td>
<td>Merged into railroad outside of sample</td>
<td>1912</td>
</tr>
<tr>
<td>Lake Erie &amp; Western R.R.</td>
<td>Control</td>
<td>Control acquired by New York Central (sold to Nickel Plate System in 1922); no separate coverage by Mundy’s</td>
<td>1900</td>
</tr>
<tr>
<td>Lake Shore &amp; Michigan Southern Ry.</td>
<td>Control</td>
<td>Merged into New York Central</td>
<td>1915</td>
</tr>
<tr>
<td>Michigan Central R.R.</td>
<td>Control</td>
<td>Controlled by New York Central; not reported in Mundy’s as separate entity after 1930</td>
<td>1930</td>
</tr>
<tr>
<td>Minneapolis &amp; St. Louis R.R.</td>
<td>Control</td>
<td>Mundy’s coverage incomplete</td>
<td></td>
</tr>
<tr>
<td>Mobile &amp; Ohio R.R.</td>
<td>Control</td>
<td>Illinois Central subsidiary; Mundy’s separate coverage sporadic throughout study</td>
<td></td>
</tr>
<tr>
<td>Philadelphia, Baltimore &amp; Washington</td>
<td>Control</td>
<td>Leased to Pennsylvania Railroad for 999 years; no separate coverage by Mundy’s</td>
<td>1918</td>
</tr>
<tr>
<td>Railroad</td>
<td>Sample Group</td>
<td>Reason for Removal</td>
<td>Year of Event</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>--------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Pittsburgh, Cincinnati, Chicago &amp; St. Louis Ry.</td>
<td>Control</td>
<td>Leased to Pennsylvania Railroad for 999 years; no separate coverage by Mundy's</td>
<td>1921</td>
</tr>
<tr>
<td>Yazoo &amp; Mississippi Valley R.R.</td>
<td>Control</td>
<td>Illinois Central subsidiary; Mundy's separate coverage sporadic throughout study</td>
<td></td>
</tr>
</tbody>
</table>